

## Exclusive Contributions

- A Study of the Maxillae with Regard to Their Blood  
and Lymph Supply—II.  
JOHN BETHUNE STEIN, M.D. .. 729

## Society Papers

- Evolution, Prophylaxis and Other Things.  
J. P. ROOT, D.D.S. .. .. 750  
A Study of the Recent Advancement of Cements.  
HERMAN FLECK, Ph.D. .. .. 767

## Society Discussions

- New Jersey State Dental Society—Thirty-eighth An-  
nual Meeting. .. .. 776  
Discussion of Dr. Root's Paper .. .. 778  
Discussion of the Report of Committee on President's  
Address .. .. 786  
Discussion of Dr. Flint's Paper .. .. 791

## Editorial

- The Problem of Interchange of Dental Licenses .. 796

## In Memoriam

- Aaron Lockwood Northrop, D.D.S. .. .. 799

# CONTENTS—Continued

## Correspondence

Information Wanted in Regard to Treatment of Ero-  
sion.

LUCIEN H. ARNOLD, D.D.S. . . . . 801

## Society Announcements

State Society Meetings . . . . .	802
National Dental Association . . . . .	802
American Society of Orthodontists . . . . .	803
New Jersey State Board of Registration and Examination in Dentistry . . . . .	803
Northeastern Dental Association . . . . .	804
Illinois State Board of Dental Examiners . . . . .	804
Oklahoma Board of Dental Examiners . . . . .	805
Ohio State Dental Board . . . . .	805
Texas State Board of Dental Examiners . . . . .	805
Northern Illinois Dental Society . . . . .	806
Minnesota State Board of Dental Examiners . . . . .	806
Maryland Board of Dental Examiners . . . . .	806
American Dental Society of Europe . . . . .	807
Third and Fourth District Dental Societies of the State of New York . . . . .	807
New Jersey State Dental Society . . . . .	807
New Hampshire Board of Registration in Dentistry . . . . .	808
Southern Illinois Dental Society . . . . .	808

---

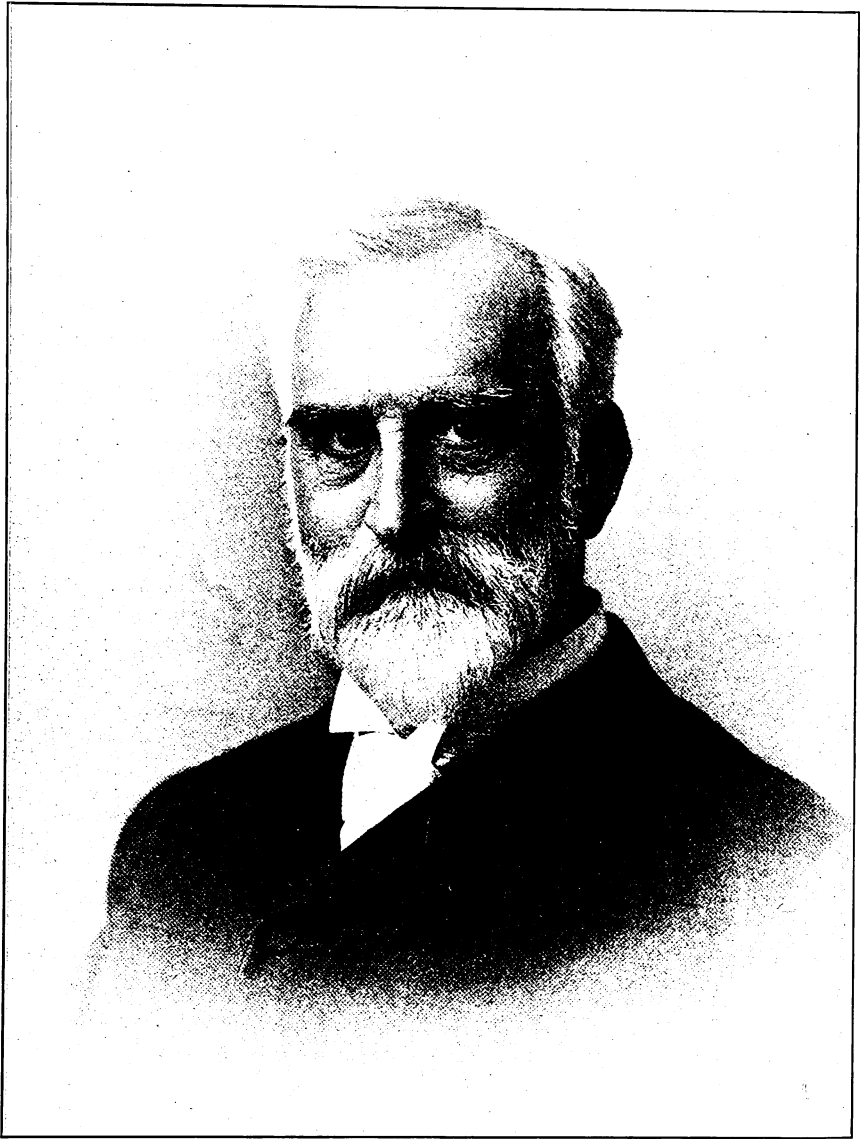
Subscription, \$1.00 per year, in advance, to United States, Canada, Mexico, Cuba, Panama and other American territorial possessions. Other countries, \$1.75. Single copies of this issue, 15 cents (Domestic).

Subscriptions received at any time, to date from January or July. Advertising rates made known on application. Remittances preferred by registered letter, postal money-order, or bank draft.

Notification of change in address should be made on or before the 10th of the month, in order to have change made in time for the following month's issue.

Address all communications to Consolidated Dental Mfg. Co., Publishers, Nos. 130, 132, 134 Washington Place; 187, 189, 191 West Fourth St., New York.





DR. A. L. NORTHROP.

FATE.

To meet with outstretched hands,  
To search clear steadfast eyes  
Till each soul understands,  
And then—our last good byes!

—S. G. P.



## A Study of the Maxillae with Regard to Their Blood and Lymph Supply.

### II.

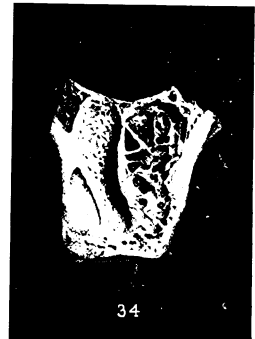
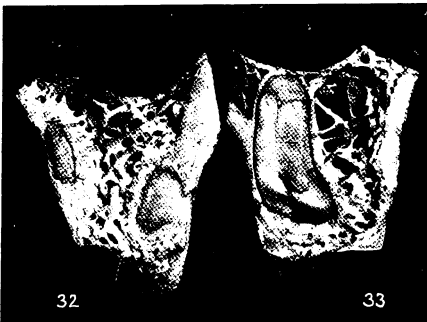
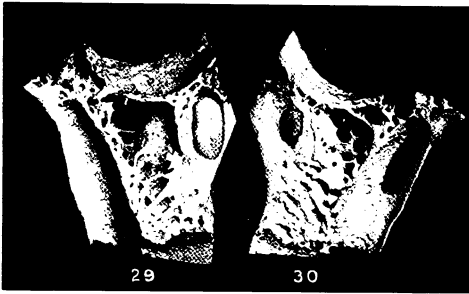
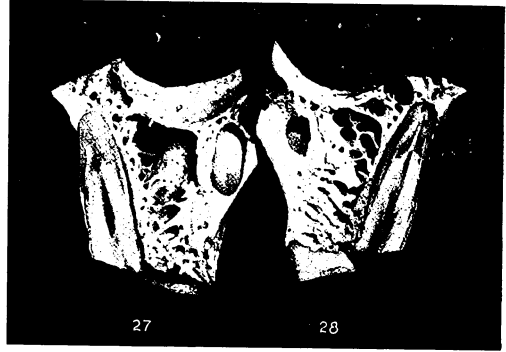
BY JOHN BETHUNE STEIN, M.D.

*Professor of Physiology and Histology, New York College of Dentistry.*

*Professor of Physiology, Veterinary Department, New York University.*

There is shown to us in Fig. 26, a portion of the external surface of the superior maxilla and parts of two buccal roots of a molar tooth. Imagine the line of section, seen in Fig. 26, between the two roots, to act as a hinge and that we open out the sectioned specimen and view the two halves from behind. In Fig. 27 appears the right half of the specimen seen in Fig. 26; in Fig. 28 the left half of the same. The palatal root has been bisected longitudinally. In Figs. 29 and 30 the halves of the sectioned root have been removed. Mark the relation of the roof of the alveolus to the surrounding cancellous bone and to the floor of the maxillary sinus above; also note the numerous foramina in the walls of the alveolus, at both their upper and lower parts, which communicate with extra alveolar structures. Fig. 31 is the same as Fig. 29, except that the buccal root of a molar tooth has been removed from the alveolus (upper right hand of picture), thereby exposing the roof of the alveolus with its many perforations. The perforations are continuous with the spaces in

ITEMS OF INTEREST



the cancellous bone, and the spaces in turn are continuous with and closely related to the floor of the maxillary sinus. In Fig. 32 we look at the outer side of the left half, and in Fig. 33, the outer side of the right half, of the specimen seen in Fig. 26.

Note the relation (in Fig. 33) of a buccal molar root to the floor of the antrum and how tightly the alveolus fits the tooth. We have in Fig. 34 the same specimen as in Fig. 33, but the semilongitudinal section of the tooth is removed. The wall and roof of this alveolus is markedly cribriform, and foramina (very small) open from the roof of the alveolus



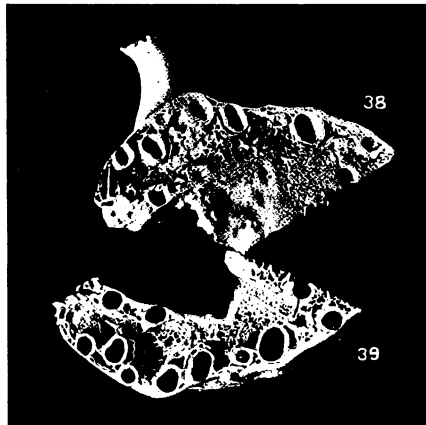
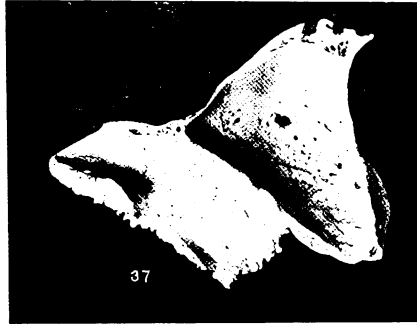
into the floor of the maxillary sinus. If we examine at their centers Figs. 27, 29, or 31 (which are pictures of the opposite side of Fig. 34), we obtain a view of the outer aspect of this alveolar wall and some of the foramina in it. Small openings in the floor of the maxillary sinus can be distinctly seen in Figs. 27 and 29. (In the upper part of the specimen appears a portion of the floor of the antrum.) Finally, you will see in Fig. 34 an absence of alveolar wall between the buccal roots of two molar teeth; again in Fig. 26 no alveolar wall presents to cover the buccal roots.

By the terms roof or floor of alveolus, we mean the bottom of the alveolus. In the superior maxilla the bottom of the alveolus is the roof, in the mandible the floor.

A section, from before backward, of the alveolar process of the superior maxilla, looking upward toward the apices of the alveoli, is given in Fig. 35. The alveoli for the lingual roots of the two molars open directly into the floor of the maxillary sinus (see Fig. 36). Foramina

## ITEMS OF INTEREST

from three of the alveoli for the buccal roots of molar teeth make the alveoli and antrum continuous. (This is seen only with the magnifying glass.) The alveolus for the mesio-buccal root of the first molar tooth has its roof perforated; the openings are into the groove, in the wall of



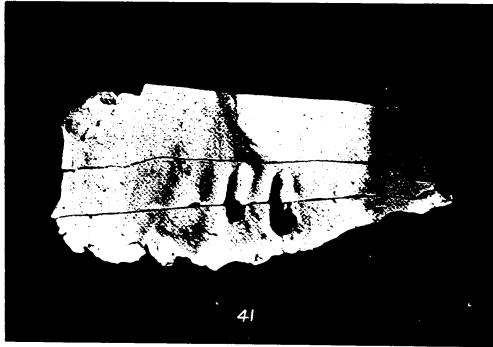
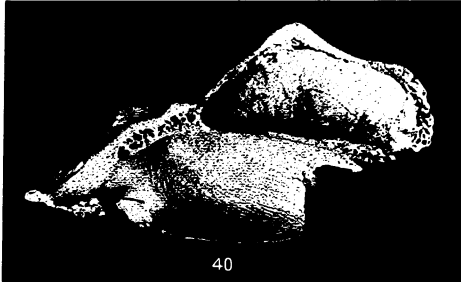
the maxilla, which lodges the posterior and anterior dental branches of the internal maxillary artery. Foramina also connect the antrum with the roof of the alveolus for the second bicuspid tooth. Finally a foramen in the labial wall of the alveolus for the canine tooth is to be noted. By carefully examining Fig. 36 (we are looking at the floor of the maxillary sinus), most of the points mentioned above can be seen. The openings of the alveoli for the lingual roots of the two molars into the antrum are obvious. The foramina of the alveoli for the incisor, canine and first



bicuspid teeth communicate with the overlying spaces in the cancellous bone.

In Fig. 37 appears the floor of another maxillary sinus (the walls of this sinus are particularly delicate) which was literally bored with holes. (The large opening in the floor is in part an artefact.)

Running backward from the forepart of the sinus, nearer the mesial

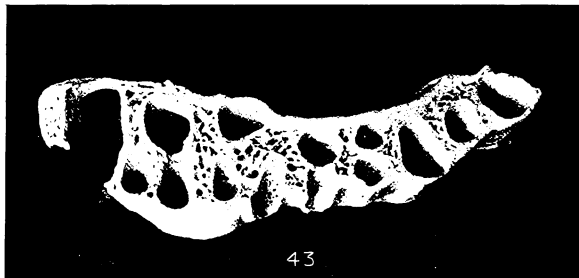


aspect of the floor, we see a groove for the anterior and posterior dental artery. The opening where the posterior dental artery makes its entrance can also be seen. Most of the foramina in this specimen did not open directly into the alveoli, but into the adjacent tissue; nevertheless, direct openings into some of the alveoli for the molars are seen. Figure 38 gives us the under aspect of the floor of the antrum, seen in Fig. 37. Many openings into the floor could be seen, especially when the specimen was held up to the light. Fig. 39 is the alveolar part of the maxilla which has been sawed off from Fig. 38 and turned over. In the picture the walls

## ITEMS OF INTEREST

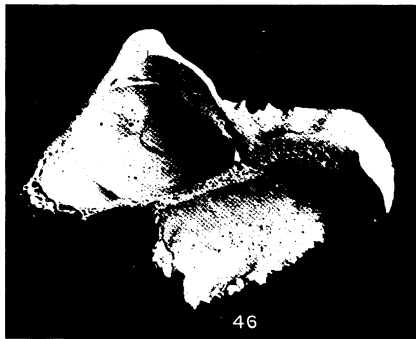
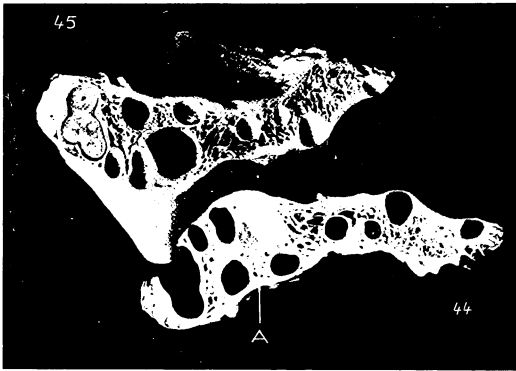
of the alveoli appear very compact; close observation of the specimen itself shows them to be as much perforated with holes as any other specimen. The external wall of the antrum is markedly perforated.

To be seen in Fig. 40 is another floor of the maxillary sinus. The groove for the posterior dental artery takes a more or less sinuous course. The foramina pass obliquely into the underlying spaces in the bone.



In Fig. 41 we examine the external aspect of the superior maxilla; the bone has been trisected. The partial absence of the buccal wall of the alveolus for one root of the bicuspid and the mesio-buccal root of the first molar is to be noted. Fig. 42 shows the palatal aspect of Fig. 41. We observe the lingual root of the second molar coming through the alveolar wall (Fig. 42 at x); the apex and apical foramen could also be seen. Fig. 43 gives us the middle piece of the trisected bone seen from below. A portion of the roofs and walls of the alveoli for the buccal root of the second bicuspid and the mesio-buccal root of the first molar is seen;

the outer (buccal) wall of both alveoli is absent (see Fig. 41). The roofs of the alveoli for the buccal root of the second bicuspid and the mesio-buccal root of the first molar are seen; the latter has no obvious foramina communicating with the floor of the maxillary sinus. We have in Fig. 44 the upper side of Fig. 43. The section has passed through the floor of



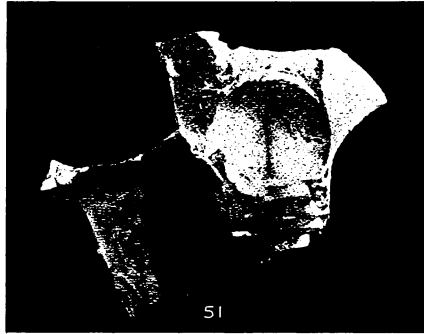
the antrum; the bone of the sectioned floor (A) appears compact, but is very thin and translucent and immediately below it is the alveolus for the disto-buccal root of the first molar; the roof of the latter alveolus is cribriform (see Fig. 43).

Fig. 45 represents the under surface of the upper section of the bone. The large opening is the section through the floor of the antrum (seen in Fig. 44 at A). The roof of the alveolus for the lingual root of the first molar has a large opening into the floor of the sinus. Openings into the

ITEMS OF INTEREST



sinus from the buccal roots of the second molar are also seen. In Fig. 46, the floor of the sinus of this same bone is exposed, showing the openings above mentioned; in addition to which others are seen passing from the palatal aspect of the bone. The groove for the dental artery does not

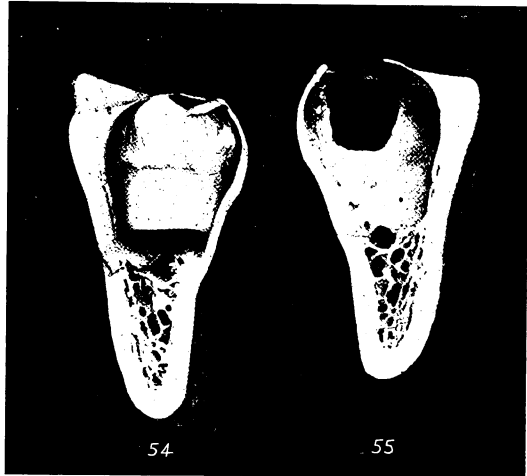
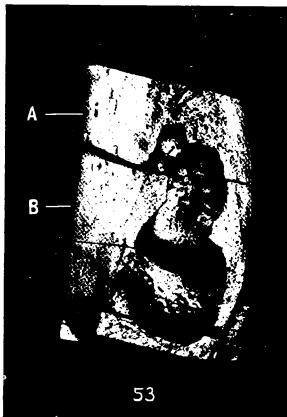


appear pervious at any point, even on examination of the specimen with a magnifying glass.

Another maxilla is seen in Fig. 47. The partial absence of the walls of the alveoli for the buccal roots of a first molar and those of the two bicuspidis is evident. In Fig. 48, most of the roots seen in Fig. 47 have been removed: a bristle is seen passing through the alveolus for the canine tooth and the sectioned root has been placed on the tip of the bristle. In Fig. 49 we are looking at the under part of specimen Fig. 48.

## ITEMS OF INTEREST

The root canal of the canine tooth stands out boldly. The view in Fig. 50 is from above looking at the antrum floor. The exit of the bristle which came from the alveolus for the canine (see Fig. 48) was at the point marked A. In the antrum is seen the apex and apical foramen of the mesio-buccal root of the second molar; a thin film of bone covers the disto-buccal root. Foramina opening into the sinus from the alveoli for the roots of the third molar are seen in the posterior part of the floor. Other foramina are seen opening into the roof of the alveolus for the



mesio-buccal root of the first molar and the palatal root of the same plunges its apex through the floor of the maxillary sinus (see Fig. 50 at X). The walls of the sinus are extremely thin. No openings appear to pass from the groove for the dental artery.

Fig. 51 gives a view, from behind, into the fossa for the third molar. Note that the disto-buccal root of the second molar has no alveolar wall covering it and that it would come into contact with the roots of the third molar.

In Fig. 52 is seen, from below, a section of the posterior part of the superior maxilla. Note the relation of the palatal roots of the second (5) and third (2) molar teeth to the posterior palatine foramen. There is a partial absence of alveolar wall between (1) the posterior palatine foramen (larger palatine opening) and (2) the alveolus for the palatal root of the third molar. In Nos. 3 and 4 are the roofs of the alveoli for disto-buccal and mesio-buccal roots of the third molar. Nos. 6 and 7 designate parts of

the alveoli for the disto-buccal and mesio-buccal roots of the second molar. The disto-buccal root of the second molar arched over and came in contact with the mesio-buccal root of the third molar. There was no external wall to the alveolus. There must have been a soft tissue between the two roots which was a common covering for both. There was no external wall to the alveolus for the disto-buccal root of the second molar. The roof of the alveolus for the mesio-buccal root of the second molar curved backward and opened by a small foramen into the posterior part of the floor of the maxillary sinus.



In Fig. 53 we look downward and into the alveoli for the roots of the second and third inferior molar teeth. A non-erupted molar is seen in the upper part of the specimen. The relation of the alveolus for the distal root of the second molar to the alveolus for the third molar should be noted. The wall between the two alveoli is in part wanting and must have been replaced by tissue which lined both alveoli and covered the crown of the third molar. If we cut through the center of the alveolus for the third molar and turn out the two pieces, seen in Fig. 53 and marked A and B, we obtain Figs. 54 and 55, showing the tooth in the distal half (Fig. 54 or Fig. 53A), and the partial absence of alveolar wall in the proximal half (Fig. 55 or Fig. 53B). Note particularly the relation of the mandibular canal (the large opening beneath the tooth) in Fig. 54 to the floor of the alveolus and root of the tooth. The relation of the floor of the alveolus to the roof of the mandibular canal is better seen in the two

## ITEMS OF INTEREST

following pictures (Figs. 56 and 57). Fig. 56 is the same as Fig. 55, except that the specimen is tilted forward in Fig. 56, thereby giving us a better view of the floor of the alveolus. Here it is that the entire roof of the mandibular canal is wanting and numerous foramina are to be seen on the floor and walls of the alveolus.

Fig. 57 is the same as Fig. 54, the tooth having been removed, giving us an oblique view of the distal half of the alveolus. The mandibular

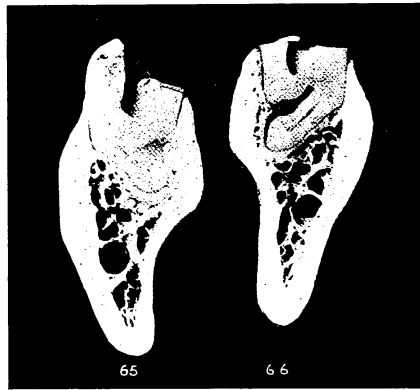
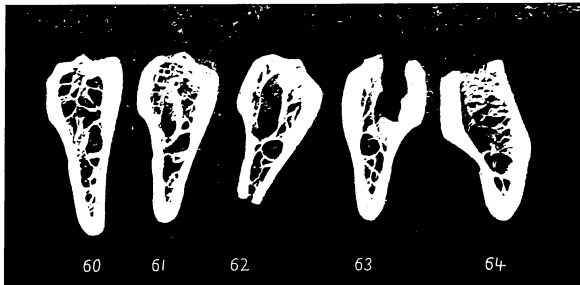


canal comes twice into view; the floor of the alveolus acting as a roof for part of it, as it courses beneath the alveolus. Many foramina are seen perforating the walls of the alveolus. The absence or partial absence of the roof of the mandibular canal in this region is extremely common, some of the contents of the canal being more or less continuous with those of the alveolus. Resting on Figs. 56 and 57 is a view of the apical part of the third molar.

In Fig. 58 (distal half) and Fig. 59 (proximal half), we see a section of the ramus of the mandible about 1 cm. posterior to the distal wall of the alveolus for the third molar, seen in Fig. 57, and 5 mm. distant (anteriorly) from the opening of the mandibular canal. Fig. 59 is the section next in sequence, posteriorly, to Fig. 53A. (Fig. 53A is the



same as Fig. 57.) Imagine the surfaces seen in Figs. 58 and 59 brought together and Fig. 53A placed in front of the two and you have a mental picture of the mandible, viewed from above, extending from the third molar to the distal part of the ramus. On carefully observing Figs. 56, 57, 58 and 59 you will see that the mandibular canal lies nearer to the

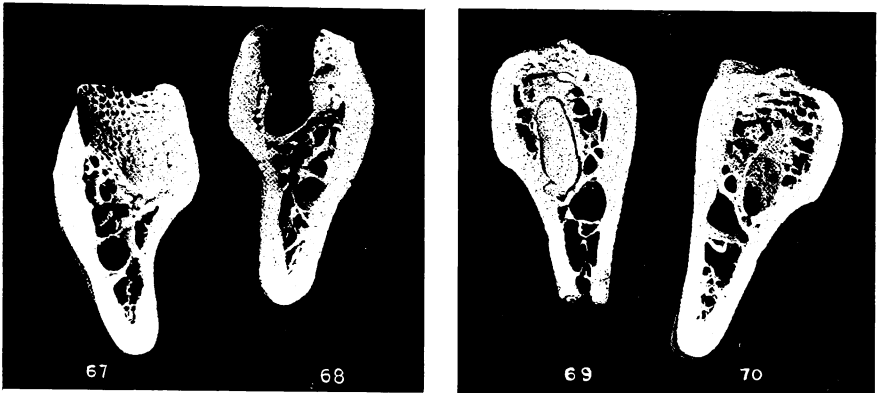


internal than to the external surface of the bone, and if we examine the internal surface of this bone, numerous foramina will frequently be found passing from it into the mandibular canal.

Our next pictures (Figs. 60, 61, 62, 63 and 64) show sections forming an alveolus for the second molar. This alveolus slanted posteriorly, almost at an angle of 45 degrees, and contained the two roots, which were much contorted and more or less united. Fig. 60 is the most posterior segment of the series and at its center and at the left is seen an oval, cup-shaped, perforated spot which is the floor of the alveolus. Fig.

61 should be placed on top of Fig. 60; Fig. 62 in turn on top of specimen Fig. 61; Fig. 63, however, should be turned over, so that the two surfaces, seen in specimens Figs. 63 and 62, come in contact.

In Fig. 64 is presented a view of the anterior wall of the alveolus, seen from in front, the section being just anterior to the alveolus, *i. e.*, through the common alveolar wall, between the alveoli for the first and second molars. This last specimen, Fig. 64, should be laid upon the reverse side of Fig. 63 and the alveolus is completed. There was no



third molar. We see in Figs. 65 and 66 the opposite sides of specimens Figs. 64 and 63, each containing half of a tooth, which has been cut longitudinally. Figs. 67 and 68 are the same as Figs. 65 and 66, excepting that the tooth has been removed. Examine the alveolar aspect in Fig. 67 and the interalveolar aspect in Fig. 64. Both specimens in Figs. 67 and 68 exhibit alveolar walls which are markedly perforated.

Finally in Fig. 69 we see the reverse side of Fig. 62; it contains a part of the slanting root, which projects into the part of the alveolus seen in Figs. 70 and 61 (which are the same). The tip of the root which fitted the bottom of the alveolus in Fig. 60 was lost; the apical foramen, however, was distinctly seen. The section of the root canal can be seen in Fig. 69.

Take special notice of the relation of the mandibular canal to the alveolus for the tooth. Between the roots of the tooth in Figs. 65 and 66 an osseous (cementum) union existed and the apical foramen of the mesial (proximal) root could not be found.

We study, in Fig. 71, an antero-posterior section, made nearer the

inner than the outer surface of the bone. The opening of the mandibular canal above and toward the left, also the relation of the canal to the floors of the several alveoli, can be distinctly seen. In the alveolus for the third molar the roof of the canal is wanting, and the floors of the alveolus for the distal root of the second molar opens directly into the canal; the proximal (mesial) root, also has a small opening into the same canal. The floors of the alveoli for the first molar are about 2.5 mm. above the roof of the canal. The distance of the canal from the apices of the first molar, in this instance, is somewhat extreme; it is usually less.

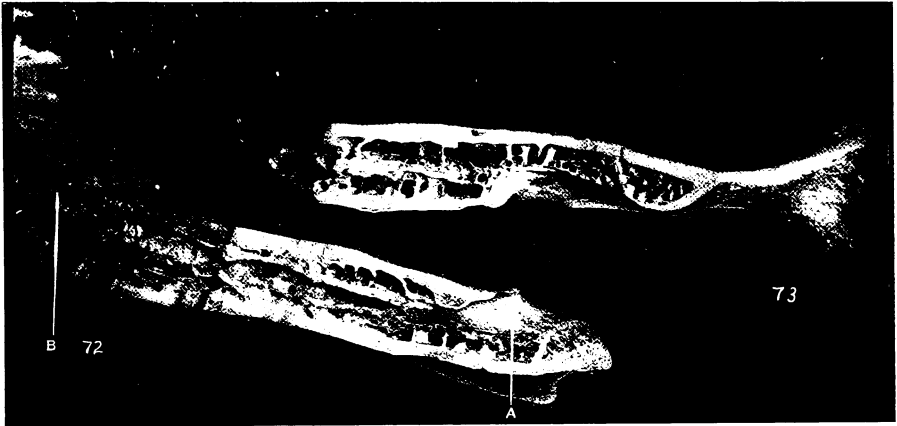


We view, in Fig. 72, the roof of the mandibular canal, starting from A, the orifice of the canal, and terminating at B, the point where the canal ends near the mental foramen. Along the roof of the canal are many foramina, varying in size from the microscopic to those which are clearly seen in the specimen. Fig. 73 shows part of the same canal, extending from the ramus of the jaw to the posterior opening of the canal. As the specimens are placed, the upper (Fig. 73) should be turned over and placed upon the lower (Fig. 72), and then the canal would be completed from the ramus to its posterior opening.

The Figs. 74, 75 and 76 show three parts of a sectioned mandible. The upper, Fig. 74, should be turned over and placed upon Fig. 75, so that the cut surfaces of the two come in apposition up to the line, where we see the transverse cut of the saw; in this way we build the alveolus for the second molar (see Fig. 77). The middle specimen, Fig. 75, shows us the cribriform floors and parts of the walls of the alveoli for the two molars, the premolar and canine teeth. The lower picture, Fig. 76, is to be placed under the middle one (Fig. 75), so that the under surface

## ITEMS OF INTEREST

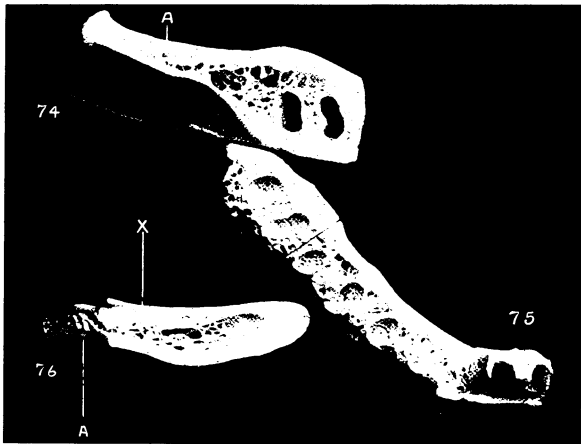
of Fig. 75 meets the cut surface of Fig. 76, which we see. In the upper part (X) of Fig. 76 is seen a portion of the floor of the mandibular canal, which is studded with numerous openings. After Fig. 75 has been properly placed between Fig. 74 and Fig. 76, the surface A of Fig. 74 should come in contact with the surface A, Fig. 76, and thus complete the angle of the jaw. We exhibit in Fig. 77, the upper piece (Fig. 74) in position,



situated on the middle piece (Fig. 75), thereby completing the alveolus for the second molar. We have also placed in position the upper portions of the walls of the alveoli for the first molar, the premolar and the canine teeth. On examining Fig 78, we have a side view of Figs. 75 and 77. We can see part of the mandibular canal in profile. The internal wall and part of the roof is exposed, while posteriorly, or toward the left of the specimen, near B, a part of the external wall of the canal is still intact and foramina are seen in it. The continuation of the floor of this canal is to be seen in Fig. 76, at X, and when the specimen Fig. 76 is turned upward and brought into a position with the slanting section, at the left end of the specimen, Fig. 78 at B, the canal is completed. Fig. 79 is a portion of the external cortex of the mandible; the saw passing between the cortex and the cancellous bone, from a little posterior of the alveolus for the second molar to that for the canine. Note that the specimen (Fig. 79) is turned over and that you are looking at the inner surface. When you turn over specimen Fig. 79 and place it in position on Fig 78, you obtain the relation of the mental foramen to the mandibular canal. The point C is the situation of the mental foramen. After Fig. 79

has been placed upon Fig. 78, the specimen Fig. 80 should be turned upward on Fig. 78 and thus complete the lower border of the anterior part of the mandible.

We are given, in Fig. 81, a view of the internal side of Figs. 75, 77 and 78. Notice at the right of the specimen a foramen which passes into the alveolus for the distal root of a second molar (see Fig. 75).

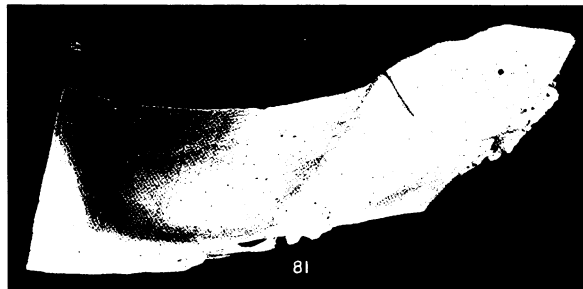
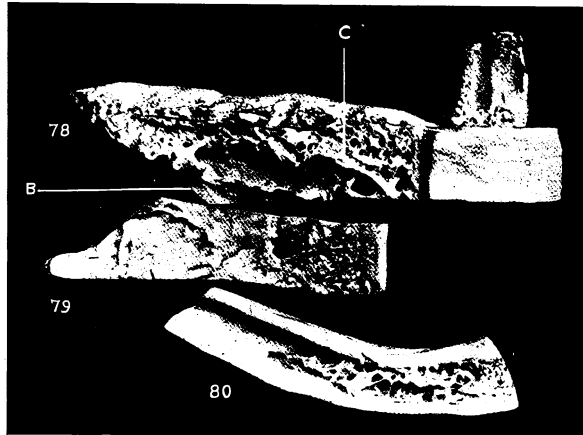


Displayed in Fig. 82 is an alveolar process containing the alveoli for all the teeth of that side. Numerous foramina are seen at the bottom, sides and free margins of the alveoli. If we turn this specimen over, we see the under-surface in Fig. 83.

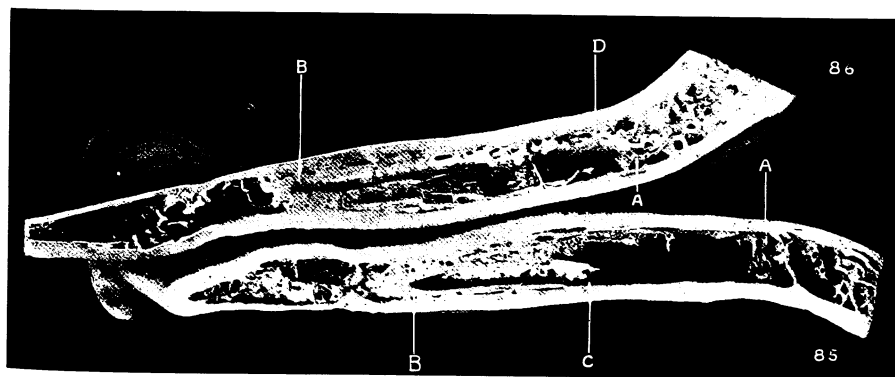
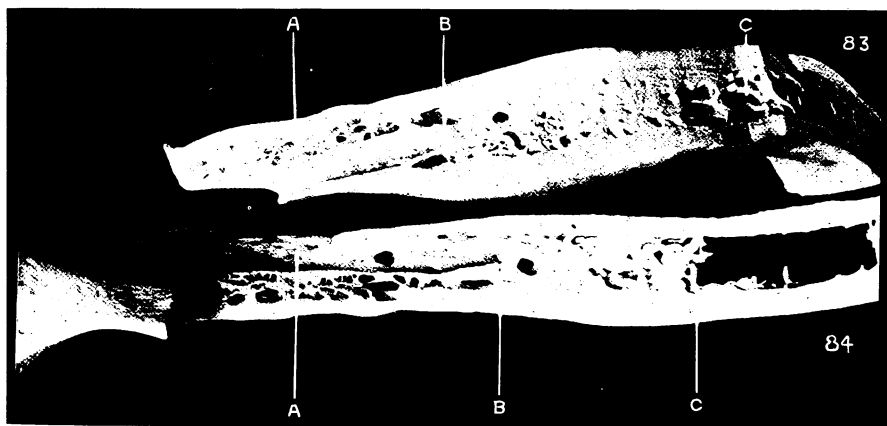
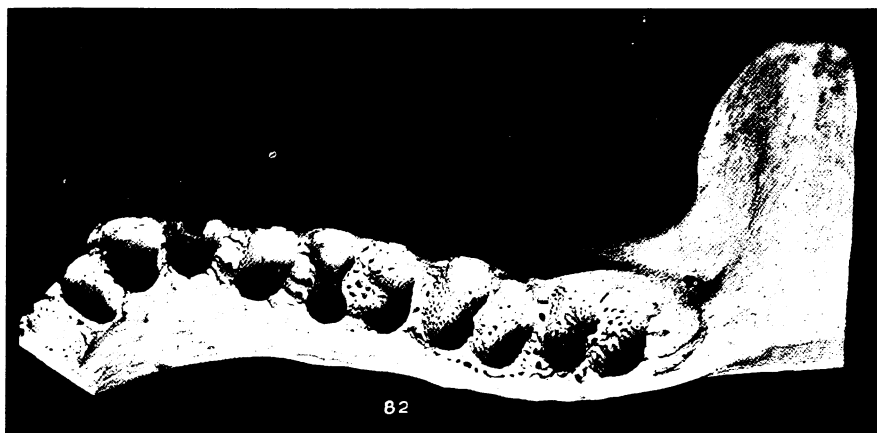
The continuity of the mandibular canal is demonstrated in Figs. 83, 84, 85, 86. We see the roof extending from A to B (Fig. 83), and the floor from A to B (Fig. 84). In order to complete the canal the specimen Fig. 83 should be turned over on Fig. 84. In the Fig. 83 are shown, between B and C, the floors of the alveoli for the second and third molars, and the

## ITEMS OF INTEREST

distal root of the first molar. Between B and C in Fig. 84 is seen, from above, part of the roof of the mandibular canal. (This will be clear when we turn Fig. 84 over and see the roof of the canal, as in Fig. 85, between B and C.) From the above you can understand that the saw, in relation to Figs. 83 and 84, passed between the floors of the alveoli of the former,



and part of the roof of the mandibular canal of the latter. Notice the numerous foramina found between B and C (Fig. 83), and B and C (Fig. 84). In Fig. 85 (which is the under-surface of Fig. 84), between B and C, the roof of the mandibular canal, before mentioned (Fig. 84, B and C), is shown. Finally in specimen Fig. 86, from the point B (corresponding approximately to the points B Fig. 83, B Fig. 84, and to B Fig. 85) we see the floor of the mandibular canal passing along the inner margin of the bone to the point D (see upper part of the specimen). Fig. 85 should



## ITEMS OF INTEREST

be turned over and placed on the sectioned surface of Fig. 86. From the point D to A (Fig. 86), the mandibular canal apparently turns from above obliquely, downward and to the right, toward the mental foramen, but in reality, in the natural position of the bone it turns upward and outward to the surface.

The continuation of the mandibular canal, immediately below where it terminates at the mental foramen, is seen in transverse section at A (Fig. 85).

The point A (Fig. 85) is therefore the continuation upward of the mandibular canal, from the point A (Fig. 86), when Fig. 85 has been placed upon Fig. 86.

### Résumé.

1. Macroscopic and microscopic openings are found in the cortex of the maxillae, in walls of the mandibular canal and the maxillary sinus. The floor of the maxillary sinus sometimes exhibits no openings to the naked eye, but if we fill the maxillary sinus with water, it passes rapidly through it.

2. The bottom (roofs and floors) and walls of the alveoli are perforated. In some specimens the cribriform condition is more obvious than in others; but never is there an alveolus without a goodly number of foramina in its walls and roof or floor, as the case may be.

3. The foramina in the alveoli open: (a) Into the spaces in the cancellous bone; (b) Into the mandibular canal; (c) Into the maxillary sinus; (d) On the external or internal surface of the bone; (e) Into an adjoining alveolus.

4. A. The spaces in the cancellous bone contain marrow and are lined with endosteum. B. The mandibular canal is lined with endosteum and contains marrow, etc. C. The maxillary sinus is lined with periosteum. D. The external and internal surface of the bone is covered with periosteum. E. The alveolus is lined with *intra-alveolar periosteum* (peri-cementum or peri-dental membrane).

5. The *intra-alveolar periosteum* is continuous with the periosteum on the external and internal surface of the bone, the periosteum of the maxillary sinus, the intra-alveolar periosteum of other alveoli, and the endosteum. If these are not one, they are united by a close genetic relationship.

6. The bottom of the alveolus is sometimes absent and then the apex of the tooth projects through: (a) The floor of the maxillary sinus; (b) The external or internal wall of the alveolus; (c) The external or internal surface of the body of the alveolar process. Here the relation between intra-alveolar periosteum and periosteum is extremely close.



7. Frequently the roof of the mandibular canal is wanting. Here we have a very close relationship between the intra-alveolar periosteum and the contents of the mandibular canal (endosteum, etc.).

8. At times a more or less considerable area of the external wall of the alveolus is wanting. The periosteum on the external surface of the bone takes the place of the absent wall.

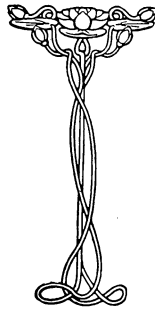
9. Frequently an absence of alveolar wall in part or entire exists between the roots of two adjoining teeth. In such a locality, the intra-alveolar periosteum exercises a function common to both.

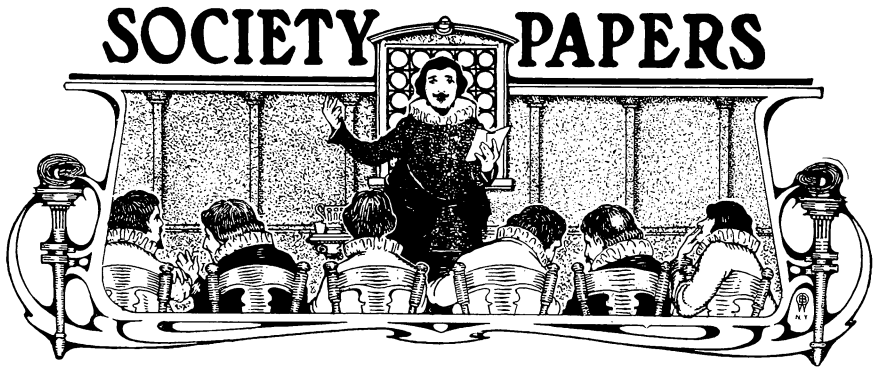
10. Even in these dry specimens the tooth fits exactly and quite tightly its corresponding alveolus.

We have arrived at our arbitrary borderland between the tooth and the alveolus and we ask ourselves the question: What is the relation between the intra-alveolar periosteum and the tooth? Does the intra-alveolar periosteum belong more to the alveolus than to the tooth?

*(To be continued.)*

N. B.—The foregoing specimens were prepared and photographed with the assistance of Mr. John L. Peters at the Laboratory of Physiology and Histology of the New York College of Dentistry.





## Evolution, Prophylaxis and Other Things.

---

By J. P. ROOT, D.D.S., Kansas City.  
*Read before the New Jersey State Dental Society.*

---

"A fire-mist and a planet—  
A crystal and a cell—  
A jelly fish and a saurian,  
And caves where the cave men dwell;

"Then a sense of law and beauty  
And a face turned from the clod,  
Some call it evolution  
And others call it God."

All progress is simple evolution, and all evolution should be simple progress. My subject to-night deals largely with what I believe should be and will be the greatest evolution ever known in dentistry; its greatest drawback is its simplicity, and it will be more difficult to make converts than it would if there were intricate operations involved.

No new or startling facts will be presented; it is a simple case of "telling you the same old story," only I am adding some prophylactic statements pertaining to other subjects than dentistry with the hope that a better and more lasting impression may be made upon you.

With becoming and overcoming modesty I come to you from the West, a native product of the great rolling prairies of Kansas, where my early days were spent in the company of the native aborigines, buffalo, prairie dogs and squaw papooses.

I have seen and participated in the evolution of a great section of this country. My short career has been long enough to see an unsightly shanty town on the banks of the muddy Missouri evolve into a city of palatial homes, magnificent parks and boulevards.

I have seen the little village with its one jerk water train a day develop into a city which to-day is the second largest railroad center of the world. I have seen a large section of land, known in early days as a part of the Great American Desert, develop into the garden spot of these United States. As a ragged urchin I saw the first train leave over the prairies for the Rocky Mountains, displacing the famous coaches on the Santa Fe Trail.

I can remember the frame shack surrounded by a few pens to hold the long-horned Texas cattle driven overland from the Pan-handle country to supply the river trade with cactus-fed beef, which was killed at the one small packing house at the mouth of the Kaw. Now these few pens have evolved into the second largest stock yards of the world.

Why mention these facts at a dental convention? Merely to show commercial evolution, a wonderful evolution, compared to the slight one we hope for. But such transformations are not to be marveled at, considering the section of the country, for as William Herbert Carruth says,

"A haze on the far horizon—  
The infinite tender sky—  
The ripe, rich tint of the cornfield,  
And the wild geese sailing high—  
  
And all over upland and lowland  
The charm of the golden rod—  
Some of us call it Kansas,  
And others call it God."

Dental evolution has not kept pace with commercial, mechanical or scientific evolution. Yet my faith is pinned to the greatest evolution dentistry has ever known, an evolution which will result in nearly the elimination of crowns, inlays or other means of restoration.

How is this wonderful and apparently impossible evolution to be brought about? By the same procedure by which the entire world is to be revolutionized, by prophylaxis—by prevention in place of the cure.

The time will arrive when only a small per cent. of the number of physicians, lawyers or dentists will be needed, compared to the present number, for then it will be the prevention of disease, evil and crime—not their cure.

These statements may seem visionary, but to one interested in the subject of prophylaxis and who has studied its different phases they are

## ITEMS OF INTEREST

not visions, but expected realizations. Every newspaper, magazine, dental and medical journal fairly teems with prophylaxis. In medicine prophylaxis is in its infancy. Yet wonderful are the results.

### **Prophylaxis in Medical Practice.**

Yellow fever, which had been accepted as the "Visitation of God," and yearly demanded thousands of lives, was found to be the result of the visitation of a mosquito; science and a few brave men soon eliminated the cause, and yellow fever has nearly become extinct.

The most remarkable hygienic work ever accomplished was that of Dr. Gorgas and associates at Panama. The Canal Zone was the most unhealthy spot in the Western Hemisphere; it was a vast graveyard. Those conditions were changed by simple prophylactic measures, so that in 1907 there was not a single case of yellow fever, and a fifty per cent. reduction in malaria.

Smallpox is not classed as a disease much more to be dreaded than measles; inoculation and sanitation has made this change.

The bubonic plague, which for centuries has each year destroyed thousands of lives, was found to be the result of the bite of a flea from a rat. Now a systematic effort is being made to exterminate all rats in India, the home of the plague.

Thousands of children are born every year who a few days after birth become blind. Science has proven that if, at birth, there is an instillation of a one per cent. solution of silver into the eyes of these infants most cases of blindness of this character will cease to exist.

The greatest curse of this country is the great white plague, yet to-day it has been proven that the preventive treatment of an out-of-door life, night and day, will in most cases control and subdue the disease.

When Greece flourished as a world-power, malaria was almost unknown there, until a conquering army, returning from Asia, brought with them, not as trophies, but as unconscious avengers, families of fever mosquitos, which unquestionably were a large factor in the downfall of Greece, for to-day one million of the two and one-half million inhabitants of Greece are infected with malaria, a suitable country for prophylactic treatment.

Three hundred and fifty thousand cases of typhoid fever occur each year in this country, of which thirty-five thousand are fatal; it is estimated that eighty-five per cent. of all cases are caused by water; to be more exact, caused by the simple process of drinking the excreta of others, as every case of typhoid fever comes from a previous case, and the *bacillus typhosus* of Eberth flourishes in all streams where city sewage is emptied, as well as in the thousands of wells from whose oaken buckets we quench our thirst with "pure, sparkling water."

The Missouri River, which furnishes Kansas City with its water, is a muddy or rather sandy stream, the color of the clay banks through which it runs. The popular opinion has been that this rolling mass of mud, sand and water purifies itself in so many miles of transit, yet the typhoid bacillus from the cities above us are landed at our table alive and active after their long trip, and the same species can travel underground through all kinds of filtering sands and earths, from the family vault to the awaiting well, and the prevalence of typhoid in country districts far exceeds that of the city in proportion to the population; yet some people wonder why some of us do not drink water (laughter).

Statistics prove that in war the bacilli and sewage are deadlier than bullets. In the Crimean campaign 50,000 were lost from disease, 20,000 from casualties. In the Russo-Turkish war of 1877-78, 80,000 died of disease, 20,000 from casualties. In our Civil War the proportion was three to one in favor of disease.

In Madagascar the French out of 14,000 men lost 7,000, and only twenty-nine of them killed in action. In the Boer war ten Englishmen died of disease to one by bullet. In our Spanish war fourteen to one was the ratio. Statistics similar to this are innumerable.

Now notice what prophylaxis can do, and did do, and the results came from the hands and brains of a race we had up to a short time ago classed as semi-civilized. In the Russian-Jap war the Japs lost 58,887 in battle and 27,158 by disease, besides nursing back to health 67,000 sick Russian prisoners. Their medical corps was the most proficient of any in any army ever known.

The Pure Food Law passed by Congress and now being passed by most States and municipalities is one of the greatest prophylactic measures, as is the agitation taking place all over the country demanding pure milk. What a simple measure to have pure milk, especially now when it is not the style to feed babies as God provided for—at least it is not the custom with us, and we admit ourselves to be behind the East in style. Last year in Missouri out of 40,000 babies, 30,000 were fed on cows' milk, and four out of five infant deaths were caused by impure milk. The degeneracy of the mothers has caused the cow to become a foster-mother to the children. So under these circumstances humanity demands hygienic attention for the cow and its adopted children. Infantile life is natural, infantile death unnatural, yet thirty-three and one-third per cent. of all babies die before one year old. Thus the necessity arises for the training of better mothers, or of giving our cows more hygienic treatment.

Statistics prove that in children two-thirds of the cases of deafness,

## ITEMS OF INTEREST

more than one-half of all cases of arrested development, are the results of adenoids—an appalling result when you consider that their removal is nearly as simple and far less painful than the extraction of a tooth. Dr. Woods Hutcheson, the most active advocate of medical prophylaxis, claims that ten years of intelligent hygienic teaching would completely eliminate this, the worst scourge of childhood. Yet you have not heard of an uprising of the medical profession to accomplish such a simple end.

These are only a few instances illustrating what prophylaxis can do or should do. Yet with all this knowledge before us we continue to have these diseases. Primarily it is the fault of the physicians; they refuse, from ignorance, indifference and other insane reasons, to become educated pertaining to prophylaxis and hygiene. We are as bad, yet our neglect is not as vital, but that does not excuse us from waging war for the extermination of diseases of the oral cavity, rather than to effect their cure after acquirement.

In mythology the goddess of health was Hygea, the favorite daughter of Esculapius, the god of medicine, and this fair lady, who should be enshrined in the heart of every physician as his cardinal saint, is almost forgotten in their wild efforts to cure diseases, which never would exist if the supposed teachings of Lady Hygea were practiced. In my section of the country the result would be a practice limited to hygiene, calomel and quinine.

Medical indifference to prophylaxis and hygiene is appalling. The dean of a medical college informed me they had lately added the chair of hygiene. The supposition is that this chair is a side issue and probably a very small chair. Common sense leads me to believe that if most of the chairs of a medical college were hygienic ones the teachings would be on a sounder basis.

The elimination (partially at least) of the legal profession will follow the elimination of crime. **The Moral Effects of Prophylaxis.** Prophylactic measures toward preventing the growth of criminals are becoming popular. The establishment of free libraries, gymnasiums, baths and playgrounds, the doing away with crime-breeding tenement districts, the placing of embryonic criminals in charge of juvenile courts, can not help but in time eradicate a large percentage of crime and criminals, as well as that necessary evil, the criminal lawyer.

It will be a slow process. For instance in the center of Washington, D. C., advertised as the most beautiful city in the United States, and soon to be the most beautiful city in the world, exist numbers of alleys labeled "Goat Alley," "Willow Tree Alley," etc., where one and two-room

shanties contain from eight to ten persons of the lowest morals. These are in the rear of prominent streets and surrounded by a supposedly good class of people. Twenty thousand inhabitants live in these alleys. Do you wonder that our beautiful Washington leads in death ratio from tubercular diseases, and is second in typhoid and malaria?

We must first clean up crime and disease-breeding surroundings; dirt and dust mean disease; cleanliness and sanitary surroundings work for a better citizenship. In medical, dental or legal prophylaxis we must begin with the children. Even the popular movement for good roads has a perceptible bearing, for any community that neglects its roads will neglect its children. This may seem straining a point, yet if you are interested sufficiently to investigate this question, you will find ample proof of the correctness of this statement, and you may take pride in the fact that New Jersey was the first State to vote money for public roads, and your neighboring State of New York must believe in good roads, as they have provided a bond issue of \$50,000,000 for the building of State highways.

Prophylactic measures for the protection, education and advancement of children are increasing rapidly. A few weeks ago our papers mentioned the arrival of "a drummer with nothing to sell." He was dispensing sunshine and happiness, and drew a salary from The Play Ground Association of America. His duties consist in visiting different cities and aiding in the establishment of public play grounds. To me this is an ideal prophylactic measure. Another one is the Public Schools Athletic League of New York City, with a membership of over one half million; the benefits have been so remarkable in the moral and physical development of the children that England sent over a commission to investigate the systems. Every city in the land is becoming awakened on this subject. Can you see what the results will be?

Preventive precautions can prevent most evils. The terrible disaster at Collingwood, Ohio, March 3, when one hundred and sixty-one school children were cremated, was the result of the criminal neglect of not providing proper exits. And what a wave of prophylaxis went over the country to prevent a recurrence of such a catastrophe elsewhere, yet what relief was this to the scores of parents left to mourn?

A few months ago a poor, lone man was sent from New York city to the penitentiary to atone for the loss of over a thousand lives; he should have been accompanied by a board of directors and some harbor inspectors; even then would the sufferings of the fathers, mothers, brothers and sisters of the victims of the loss of the *General Slocum* have been relieved? It was simply a few score lives lost to save a few dollars to

## ITEMS OF INTEREST

pay dividends on watered stock, when those few dollars spent for prevention would have saved untold suffering.

We are great money spenders, we have the finest fire departments in the world, we spend two dollars and fifty cents per capita to pay our fire loss; Europe spends thirty-five cents. Why this difference? Prophylaxis; simple preventive treatment. In Europe they demand and get fire preventing construction; we have fire-fighting apparatus.

But we Americans are a careless people. We apparently value human life as our lowest asset. During the Russian-Jap war we marveled at the apparent indifference with which the little "yellow devils" went to their death, yet we daily take as many chances as did they; our careless disregard of human life has become a second nature.

When we consider such serious questions as these, one wonders how such an apparently trifling thing as oral prophylaxis can ever attract public attention sufficiently to become a fixture, but I am optimistic enough to believe all of these will be remedied. But they never will be if we sit back and wait for the other fellow to do the doing. If, to accomplish the desired reforms, we must become cranks, let us begin to-day to enter the kingdom of crankdom; we will find a few able men who have preceded us.

### **The Attitude of Dentists toward Prophylaxis.**

What must we do? First we must educate ourselves to the full realization and appreciation of what oral prophylaxis is, what it can accomplish; then educate our patients, then the general public. We must establish by law the regular examination of children, the compulsory attention to their requirements. This is not a new theory, but it is becoming a new practice, and with all other prophylactic measures must progress. The only reason, or reasons, I know of which retard our progress are the ignorance, indifference and selfishness of the dentists. Ignorance and indifference are inexcusable; selfishness worse. I have had supposedly good men tell me "Your theories are right, but not for me. I am not going to ruin my own business." This is what hurts, for the faithful following of prophylaxis will eliminate from fifty to seventy-five per cent. of all dental operations, except the cleaning of the teeth. I would class such a dentist as on the same plane with a physician who failed to cure a patient promptly, simply to acquire a larger fee. The argument I use most frequently with my patients is: their frequent visits lessen the amount of pain, lessen the amount of money spent, besides keeping their mouths in healthy condition.

Pride, false pride, is a great drawback toward successful prophylaxis. Too many dentists consider the simple cleansing of teeth a menial and inartistic operation, one beneath their dignity. For instance, on



January 8, at the meeting of the Academy of Stomatology, Dr. William H. Trueman, in discussing a paper by Dr. A. W. Harlan, said: "Papers on the subject of prophylaxis are read in rapid succession, our journals are full of it, but are we advancing? Is it normal for a human being in civilized life to have a filthy mouth? If it is, the dental scavenger is legitimately on the programme." There is the reason for neglect, the fear of being called a "scavenger," and when a man of Dr. Trueman's prominence can use such phrases, probably the fear is well founded.

Twenty-five years' experience in dentistry convinces me it is normal for civilized people to have filthy mouths, in fact the higher the civilization the more tendency there seems to be toward predisposing causes for filth; this statement is verified in the colored race, and in all savage races who come under the benign influences of modern civilization. This is easily accounted for by the radical change in their mode of living, in the class of food they eat, such as soft breads, cereals, predigested food, etc., which lack the need of thorough mastication. Consequently the teeth, from lack of exercise, deteriorate the same as any other tissues of the body.

In advocating oral prophylaxis I am not advocating theories, but facts. My experience justifies me in believing that a great percentage of all oral diseases can be eliminated by its practice. For years I have doubtfully read the prophylactic doctrines of the man whom we ridiculed for his apparently visionary dreams; but his perseverance, the results he accomplished, began to convince others he was right, and to-day I give Dr. D. D. Smith, of Philadelphia, the credit of being the father of oral prophylaxis, and to him is due the fact that hundreds of us are practicing this procedure, where a few years ago he stood almost alone. While Dr. Smith is more radical and positive than I, and our procedures differ somewhat, that is immaterial, as it is results that count.

The objection to limiting one's practice largely to the cleaning of teeth is a serious one to overcome, but to the honest dentist it must come in time. A dentist from a small town criticized Dr. Smith because he advocated the necessity for frequent visits to the dentist. He said: "*We are not here for the purpose of cleaning teeth. While it is efficacious, it is only adapted to a metropolitan practice. It is aristocratic in its inception, and Dr. Smith does a great deal of good to a few wealthy Philadelphians.*" I am not acquainted with this man, but it is safe to say he is a pessimist.

The only successful prophylaxis treatment must entail frequent visits to the dentist. This is one of the essential features, and the cry of the country dentist that he can not follow the practices of the city man is ridiculous. Yet it is the most common excuse made for bad procedures.

## ITEMS OF INTEREST

Also poverty (not extreme, but moderate poverty) is no excuse for long-delayed visits to the dentist, for frequent ones are a source of economy to the patient, and they are readily convinced of this fact. Also cleanliness is not confined to the wealthy, and while it may be aristocratic in its inception, it is a good, wholesome form of aristocracy suitable for all.

You may say I am optimistic. I try to be, and in my early days optimism regarding future feasts was often the seasoning of a humble repast. God bless the optimist, for this would be a sorry world if the census only tabulated a lot of woe begone "I told you so" pessimists. For

"Twixt optimist and pessimist  
The difference is droll,  
The optimist sees the doughnut,  
The pessimist the hole."

### **Pyorrhea Alveolaris.**

A year ago I read before the Kansas association a paper entitled "The Treatment of Pyorrhea from the Standpoint of an Amateur." The pyorrhea specialists were unanimous in agreeing it was by an amateur; it did not increase my popularity with them; they took exceptions to the radical statement "that under any existing treatment pyorrhea can not be cured, but may be subdued and controlled"; that the unsettled questions as to whether the disease was systemic, local, hereditary, etc., or whether the patient had a kidney breath, were not considered; unsettled theories were laid aside and practical results sought for by the judicious instrumentation of parts, and the present subduing and future controlling of the disease. In making this statement regarding the cure, the question of what pyorrhea is must be considered. You can not class gingivitis, or local inflammatory conditions from salivary calculus as such. My decision is based upon the fact that I never cured a case, nor have seen one anyone else cured. By "cured," Webster's definition is meant, namely, "Restoration to Health," and no demand is made that lost tissues be reproduced, simply that remaining tissues be restored to health and remain so. The attempts to cure pyorrhea demonstrated that prophylaxis would prevent its recurrence. As to what causes pyorrhea I must admit my ignorance, which is as great as that of the so-called "pyorrhea specialists." C. N. Pierce says it is "a morbid action, characterized as a molecular necrosis of the retentive structures of the teeth." Those who have made scientific researches on this line differ greatly regarding the causes. Some claim it is due to a distinct micro-organism, others that it is due to local causes. It has been

proved and disproved to be systemic and hereditary, infectious and contagious. There is no question but that hereditary conditions exist with many, where there is a predisposition for infection, and I am inclined to believe it is contagious, for in my practice I find in nearly every case where husband or wife are afflicted, and their blood is not chilled, it is only a matter of time before the other succumbs. This is not quoted as a scientific fact, but simply as a fact.

Believing that the more my patients know regarding their troubles, cause, and results, the better they will follow my instructions, I explain, or try to explain, what pyorrhea is, what the results of neglect will be, what my treatment is, and the necessity of observing my instructions regarding future treatment by them and myself, and that if they do not feel willing to follow these instructions it will be useless to begin.

**Treatment of  
Pyorrhea  
Alveolaris.**

My theory is there is something to be removed and some congested tissues to restore to health; so begin to remove and restore. Most patients come with an inherent dread of pain to be inflicted, so in first treatment aim to allay this dread, and also facilitate future operations by simply removing superficial deposits, and polishing coronal portions of teeth, frequently forcing, with compressed air, hot antiseptic solutions through the approximal spaces and any existing pockets. In a few days the patient returns with most of the congestion gone, the outward improvement more marked than at any other stage, and their dread of pain nearly eliminated. The treatment from now on is the thorough removal of all deposits (and my aim is not to class *cementum* as a *deposit*, a common failing among so-called specialists), each tooth to be finished at one sitting and left alone for restoration by nature and hygiene. The number of teeth finished at each sitting depends upon the character of the deposits, the difficulty of removal, and pain inflicted; as a rule each sitting is limited to thirty minutes, never to exceed one hour.

I am not a Christian Scientist, yet I do not believe much in medication for any part of the body; so my therapeutical treatment is nine-tenths what may be termed "mechanical therapeutics," just instrumentation, gum massaging, etc. At each sitting, whether they be two or ten, the coronal portions of teeth are thoroughly polished with cups, brushes and orange wood points, and copiously flooded with hot solutions.

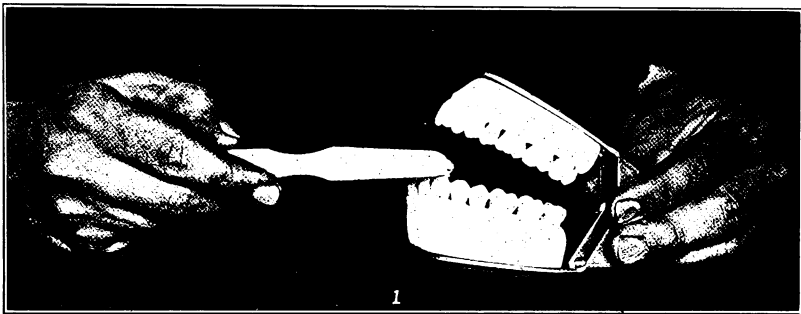
The patient, being served to the best of my ability, is again instructed as to future treatment, being guided by their tendency toward cleanliness of mouth, by predisposing causes toward recurrence of trouble, whether they shall return to me in thirty, sixty or ninety days, when they will be notified by card, and only notified once.

## ITEMS OF INTEREST

All patients, whether suffering from pyorrhea or not, receive these cards, and I consider this one of the greatest of prophylactic measures.

### **Proper use of Tooth Brush.**

The most essential as well as most neglected prophylactic advice to be given, is as to the proper use of the proper tooth brush. This advice is apparently neglected by most dentists, at least I have never had a patient who had been advised as to its use, and the common expression is "Why have I not been told this before?" I also say why? To do this satisfactorily I use a typodont form (Fig. 1) and



what I term the proper brush, which is a large, stiff, corrugated one, which in use will cover the surfaces of the teeth. I object to brushes such as the "Prophylactic," a dainty little affair, with a projecting teat, which is supposed to go around corners, but in reality is a hindrance.

With the proper brush and typodont form the patient is shown how and why he must reach all surfaces, and instructed with the special need of brushing just before retiring, so as to remove any particles of food from interstices of the teeth.

I am a believer in the liberal use of tooth powders and advise their use on a dry brush; the fear of causing receding gums or abraded teeth does not deter me from advising my patients to use them, for if, to obtain and retain cleanliness, these results are produced, the benefits far more than offset any injuries.

The care of a brush is important. After being used it should be washed and dried and kept in a proper receptacle, such as the saniphore (Fig. 2), which is a glass tube with a receptacle at bottom containing an antiseptic solution. The manufacturer of this claims all germs are destroyed; perhaps they are? But if not you can at least be assured that

any remaining germs are your own. But you do know that your brush is clean and kept clean, and your own breed of germs are not contaminated by visiting ones from Ma's or Aunt Hannah's brush.

The average American family are not millionaires, with a separate suite for each member of the family. We, "the people," as a rule have one bathroom, where, for the convenience of running water, we perform our toilet. Custom seems to have decreed that there should be a family tooth

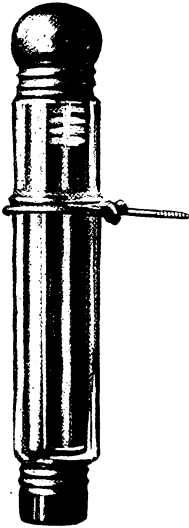


FIG. 2.

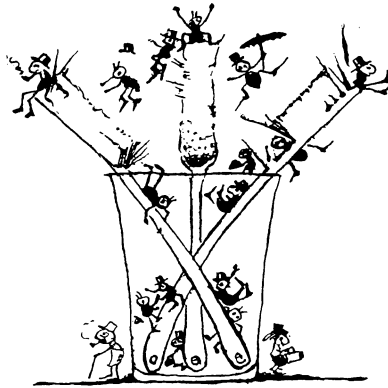


FIG. 3.

jar containing an assortment of hairless tooth brushes. Each brush, if it contains a sufficient number of hairs for breeding space, contains its own variety of bug. These, like the inhabitants of a tenement house, become friendly and visit each other (Fig. 3). This not only changes the breed of the stock, but perhaps causes you to polish your teeth with some of your mother-in-law's microbes. There are a great many reasons why a "family jar," be it between you and your wife, or one for tooth brushes, is objectionable.

Very few appreciate the fact that the life of a tooth brush is, or rather should be, a short one, only lasting a few weeks, and patients should be advised of such fact. You should select what you believe to be the proper brush, and have some merchant near you carry it in stock, and see that your patients purchase that particular brush, advising them according to existing conditions as to whether they use a medium, hard

## ITEMS OF INTEREST

or extra hard bristle. The unholy desire of the average woman to shop at the bargain counter in department stores does not result in the selection of proper brushes.

Mouth washes are undoubtedly a good thing, especially as deodorizers and possibly as retarders of putrefaction, but not as germicides, except to a limited degree, for, if able to destroy germs, we would probably die first. I may be mistaken in this statement and hope such is the case, but test tube theories have not as yet convinced me.

But their use is advisable and you should advise the use of one with a pleasant flavor, with the idea that its frequent use would promote the increased use of the tooth brush.

The question is often asked of me, Is this system of prophylaxis satisfactory; do you get the results aimed at? Yes, and no. I obtain wonderful results for the faithful, and it is surprising how many fail to appreciate your efforts, yet the increase of appreciative ones is sufficient to encourage its continuation.

**Unhygienic Fillings  
and Crowns.** Oral prophylaxis as practiced and talked of to-day deals largely with the cleansing of the teeth.

This is the most important feature, but there are many things we do, and many we do not do, having an important bearing on the subject. The most frequent and least excusable cause of trouble is the elimination of the approximal space by the insertion of improperly contoured fillings. For years it has been my contention that as a tooth preserver no other filling equals amalgam. I also contend that not one dentist in ten knows how to properly insert amalgam, or if he does he fails to utilize his knowledge. The most frequent location for amalgam is in compound approximal and crown cavities in molars and bicuspid, where the approximal walls have broken away and the teeth come together, obliterating the approximal space. Prophylactic treatment absolutely demands its restoration.

This can only be done by ample preliminary separation, so as to restore proper contour, point of contact and space. The results of such operations need not be mentioned. You are all familiar with them.

The banded crown comes next as a trouble-breeder; not its use, but its abuse. The placing of a No. 8 crown on a No. 6 tooth causes trouble at the gingival border, the gold band cutting into the gum tissue instead of closely hugging. The men largely responsible for this are those who crown live teeth, as in probably ninety per cent. of such cases it would be impossible to properly trim the teeth, owing to the pain inflicted, and even if possible the pulp would probably die from the ortho-phosphoric acid in the cement.

Bandless crowns cause less trouble, but when imperfectly adapted, such as having the crown either larger or smaller than the periphery of the root, a ledge is left, sure to be a cause of irritation.

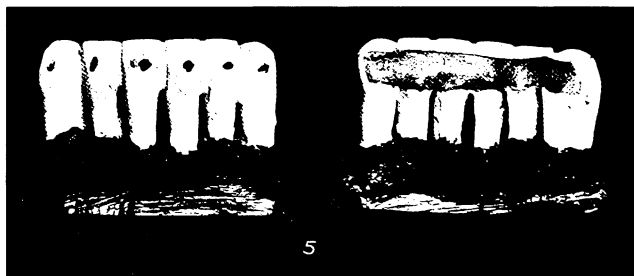
Saddle bridges fitting too tightly or too loosely, bridges having inaccessible surfaces, impossible to cleanse, are frequently responsible for trouble.



**Splints for  
Loose Teeth.**

There is one form of prevention I am surprised not to see used more, especially as it is probably the most satisfactory operation I know of in dentistry.

That is the use of splints to retain loose teeth, generally the lower incisors. I have made dozens of them; many have been in satisfactory use for ten and more years, yet I have only seen one made by anyone else.

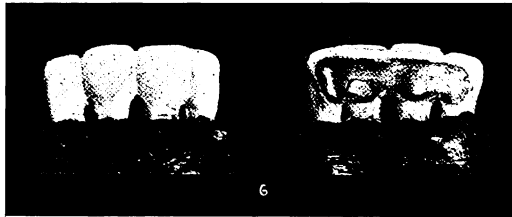


As a rule it is men who are in need of them, and generally a condition exists where serviceability is desired more than artistic results, so in most cases bands are used. The incisors are trimmed at cutting edge with sandpaper disks so as to be perpendicular, a strip of thirty gauge gold inserted so as to cover the labial and approximal surfaces, the two ends projecting lingually. These are pinched together with a pair of Angle pliers, removed and soldered, the projecting ends clipped off.

## ITEMS OF INTEREST

After all are made they are placed in position on the teeth and an impression taken with modeling compound. This is removed and the bands carefully placed in it, in their exact position; investment plaster is run into impression; when hardened soften modeling compound and remove. You then have your bands exactly as in mouth. They are soldered together on lingual side, trimmed and polished, and when cemented into position you have some immovable incisors and a delighted patient (Fig. 4).

If for a lady or a particular man I use the Patterson method, which is far more difficult, but, when successful, satisfactory and artistic. This is made by boring holes through incisors and swedging thirty gauge, twenty-four karat gold to lingual surface; gold wires of exact size of



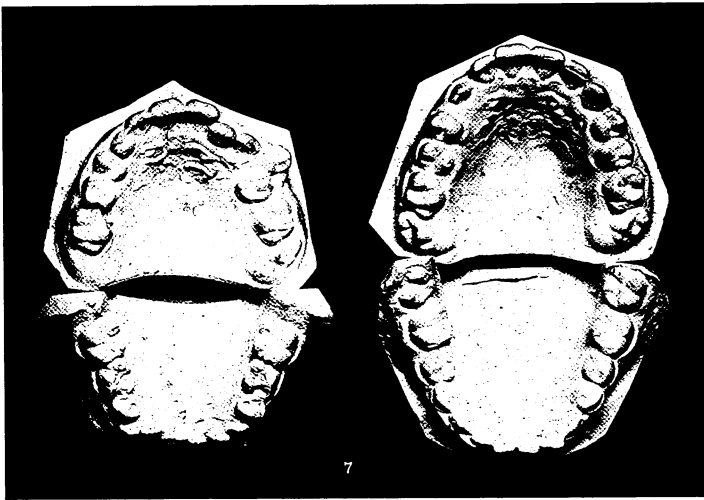
holes are soldered to the swedged gold; when completed it is cemented on lingual surface. The wires should be left long enough to project through on labial surface, and be grasped by pliers, to assist in pulling splint into position. When cement is set cut off wires, and grind off smooth (Fig. 5).

Occasionally you will find upper incisors loose. In such cases destroy pulp, swedge splint to fit lingual side, solder to pins going into pulp chambers, and cement into place (Fig. 6). Probably most of you are familiar with these methods. They are only mentioned as a great prevention of the loss of these teeth. I have one case of a swaged splint covering eight lower teeth, solid on lingual side, partially cut out on labial. This was placed in position twelve years ago, and during that time the owner has been in office once or twice a month for treatment. To-day the teeth, which have for attachment not one-fourth of the root, are as firm and in better condition than when splint was put on. Money could not buy this, nor purchase in any other form the comfort and satisfaction he has had.



**Relation of  
Orthodontia to  
Prophylaxis.**

Very few of us appreciate the bearing which orthodontia has toward oral prophylaxis. Undoubtedly in the majority of cases we correct or send to an orthodontist for correction. The question of esthetics is the one considered. It should be considered, but not alone. In all cases of irregularity there is malocclusion. Such conditions must result in the imperfect mastication of food, and be followed by stomach troubles eventually, besides the in-



creased tendency toward decay due to impaction of food between crowded teeth, and the impossibility of removing same with tooth brush. Fig. 7 shows a case before and after treatment by one of your local specialists, Dr. Fred C. Kemple. The improved arches speak for themselves.

**Examination of  
Teeth of School  
Children.**

To remedy existing conditions will be the work of many years. First we, the "cranks," the "dental scavengers" (God bless us), must thrust our old and new theories before you at every opportunity, until in self-protection you endeavor to prove we are wrong. This will result in your conversion, and add to the "scavenger corps." The national, State and local dental societies must make systematic efforts toward educating the dentists; then public laws must be passed and enforced pertaining to childhood prophylaxis. The men who do this will have many disagreeable stumbling blocks to cross; they will be

## ITEMS OF INTEREST

adversely criticized, but in the end blessed. The only organized effort for the teaching of oral prophylaxis I know of is by the Sanitol Educational Association, an offspring of a commercial corporation. Their intentions may be honorable, but the commercial feature behind it can not but be a detriment. But right or wrong, they have the correct ideas. One of their reports gives some figures proving the necessity for action on our part. At Alton, Ill., 1594 children were examined; 1109 had teeth needing filling; only 37 needed no attention; 680 had never been to a dentist.

We are far behind, instead, as we should be, ahead of many other countries. New South Wales, an unimportant country, reported 73,000 cases examined in 1907; 94 per cent. having decayed teeth. In the city of Strassburg 18,667 children received free treatment in 1906.

My only excuse for inflicting upon you such a medley is to impress you more regarding the importance of the subject, and that the paying of attention to the small details will often prevent great troubles. Very few of us appreciate the old adage, "A stitch in time saves nine," sufficiently to take that one stitch.

I agree with whoever said: "Man's greatest enemies are things so infinitely little that his unaided senses can not appreciate them; and that the greatest blessings which human beings can confer upon their fellows lie in the domain of scientific sanitation, and I have the greatest longing to see the time arrive when we will be doing our share toward changing the diseased condition of the world into a perfect one."

Since listening to your president's address this morning, I am pleased to know that the progressive New Jersey dentists are showing their progressiveness more and more, especially in starting the movement for the examination of children's teeth in the public schools. This once begun, in a few years will spread to every county, then to every State, and oral prophylaxis will become a fixture.

## A Study of the Recent Advancement of Cements.

By HERMAN FLECK, PH.D.

*Professor of Chemistry, Colorado School of Mines.*

*Read before the Colorado State Dental Association, June 19, 1908.*

In June, 1902, I was asked to prepare a paper on the subject of oxyphosphate cements, embodying a resumé of work on this subject with which I had become familiar through a number of years of research.

From time to time since, it has been my pleasure to prepare and read papers before this society and the Denver Section. Again it is a pleasure to address you on this matter under the title of Recent Advancement, and at the outset I purpose to use experience, gathered in the past in a number of interesting and lively discussions, to define my position.

As on former occasions, therefore, I shall adopt a standard by which the qualities of cements shall be measured and avoid therein wholly the danger of advertisement of any product.

Cements are the products of well studied reactions, and these, when applied to the arts, are subject to the same principles applied to other useful products of chemical manufacture. Such products are in demand on specifications depending on the nature of application of the product. An architect will now specify a quality of Portland cement having standard qualities of quick or slow setting, of certain strength and hardness, and a structural material which will fulfil these specified qualities finds the greatest demand. A municipality will demand a paving material of specified hardness, flow, softening point, etc. All structural materials are contracted for under similar conditions relating to durability, and the contract goes to the firm manufacturing materials of definite qualities. These are regulated by standards of fixed ideals. Perhaps these ideals have not been fully reached, but nevertheless they act as a constant stimulus to improvement and the introduction of a new thought applied practically brings the product nearer the ideal, creates a new demand and a successful market in the face of heavy competition.

Your high, yet imperfect, standard of articles useful to your profession is due to these same set ideals, and if there be not enough proof in the constant offer on the market of new cements with improved features, then let me state as former consulting chemist to one of the leading manufacturers of dental products, that their success is in a large measure

## ITEMS OF INTEREST

due to methods of research based on fixed ideals which I was encouraged to employ and which I know were and undoubtedly are their standard. Some standards for cements are:

**Standard  
Requirements for  
Cements.**

(A) Both liquid and powder should retain their original form. Constituents in the liquid which have a tendency to separate as crystallin masses should condemn the product.

In these cases the supernatant liquid has a different composition from that intended by the manufacturer, who has no control over the extent of variation due to depositing of certain constituents. The original idea miscarries and any cement must be a hit or miss affair for which it is claimed that the altered liquid is as good as the original.

The powder must be free from substances which absorb atmospheric constituents to form compounds which give off gases on admixture with the acid liquid. The powder should therefore be free from alkaline substances basic enough to absorb carbonic acid from the air. If present, such substances produce porosity due to bubbles, and porosity is destructive to strength, hardness and insolubility alike. Powders should likewise not absorb moisture from the atmosphere too rapidly. It is inconvenient enough that nearly all liquids have a tendency to do this and need careful guarding.

(B) A cement should neither contract nor expand. So much attention has been given to this heading in the field of amalgams that further comment is hardly necessary. One twenty-thousandth of an inch expansion is the standard adopted for a period of setting. Shrinkage is prohibitive since it permits entrance of oral fluids.

(C) A cement should have perfect setting qualities.

Here I may introduce facts gathered from observation. The setting of a cement takes place in several distinct stages. The time of hardening is not the final stage. In this the chemical reaction reaches a point when mobility of the mixture ceases and then proceeds to complete chemical reaction of neutrality of the mix. If this latter stage is of long duration the mixture demands some kind of protection, a thing quite difficult of accomplishment under the conditions imposed.

Solubility of the mix decreases with the progress of this last stage—an important point—and is measured by the time of acidity of the mix. So long as the cement is acid it offers soluble portions to the oral fluids because in chemistry acidity in its ordinary sense and aqueous solution are synonymous terms. Furthermore, so long as the final stage of setting remains unfinished, just so long is the tooth structure exposed to acid

influence. The effect of such action as a destructive agent is a mooted question, but mooted questions are set aside when ideal standards are reached.

Therefore time of setting is a factor. The first stage should be reached in as short a period of time as convenient to practitioner and patient and the last stage should not extend over a day or two.

(D) A cement should be impervious to oral fluid. The destruction of a cement is not alone due to attrition and solvent action of organic acids or alkalies present in or formed in the mouth, but also to solvent action of water, the chief constituent of oral fluid. Where water can enter, organic life of destructive kind can also enter.

A porous mass made by leaking out of soluble matter is unquestionably a foe to life of tooth and cement alike. Therefore a cement product should contain only insoluble constituents. I may again point to the fact that where the product is slow of setting during its final stage, soluble constituents are present. A characteristic property of matter is solubility. All substances are more or less soluble in water, and considering a cement as a whole, that combination of elements will last longest under the influence of solvents when perfectly combined chemically which possesses the property of solubility to the least degree.

(E) A cement should have a good power of resistance to pressure.

Hardness after a reasonably short time is a factor so closely allied to pressure resistance that the two should rightly be considered together. These properties are entirely dependent, it seems, on chemical constitution, time, and degree of fineness of powder. In the modern types of the zinc oxyphosphate class a resistance to pressure of four hundred pounds has been obtained in those cements which set rapidly. Those which set slowly attain this only after a long period, the cause being supercharging the liquids with modifiers of zinc and aluminum phosphates. Special reference to this may be found in *ITEMS OF INTEREST* for 1902.

(F) A cement should have strong adhesive qualities.

While much depends on the nature of the surface offered to a cement, it may be said that this quality is mainly dependent on the chemical nature of the ingredients. Zinc and magnesia compounds seem indispensable to high adhesiveness.

(G) A cement should contain no constituent liable to change color.

Any metal forming dark sulphid should properly be excluded. Most commercial zinc oxids contain iron which in alkaline solution forms a dark sulphid. There is little doubt that much of the change of color in the oral fluids is due to this cause. Of course any wilful addition of a dark sulphid forming compound is unpardonable. Yet there are such.

## ITEMS OF INTEREST

(H) A cement should contain no poisonous ingredient. Practically the only question arising here is that of arsenic contamination found in commercial chemicals. This again is a mooted question which can be set aside by use of pure products or those not liable to contain poisonous ingredients originally.

(I) A cement should have hydraulic properties and should not deteriorate when directly moistened. In a previous paper I was constrained to say:

"In many cases these shortcomings are recognized by the compounder, who includes a varnish or wax in the package and advises the use of these. Such coverings are of doubtful use for several reasons readily understood. The alcohol acts upon phosphoric acid, thereby changing the composition of the surface material. All cements in moist condition do not take to varnish or wax and even when firmly set it has been shown that the surface of a cement gives off water vapor. When a cement requires protection from water it is because its liquid is supercharged (with modifiers) or its powder constituents contain insufficient neutralizing material. Provided that a covering material is found that will adhere at all, its duration is not long. The slightest disturbance will cause leakage through it. To have a cement so prepared as to *require* moisture after a brief period goes a long way toward constant results." Expansion or contraction, wet or dry, are two very different things for the same cement.

(J) Since the demand for translucence seems fixed I must add this as a remaining quality to be considered a standard. The nature of this is again dependent on chemical constitution and is considered in this paper.

Now I will admit that for many purposes certain of these standards would not be brought prominently into play. For instance when not exposed to view a discoloration is of little importance as such. Again, a cement filling in some classes of cavities requires little or no crushing strength. But with the products to be discussed I see no reason why these standards should not be used, since their use does not appear to be restricted. Therefore they shall be measured by the standards.

I shall call them Nos. 1, 2, 3, 4, 5, 6, 6a, and 7.

### **Report on Cements Examined.**

Nos. 1, 2, 3, 4 and 5 are in a class by themselves, as are also 6, 6a and 7. These two divisions will be considered separately.

### **Cement No. 1.**

*Liquid*.—A modified phosphoric acid. Perfect in appearance. No crystallization of liquid noticeable. *Composition*.—A modified phosphoric acid.\*

\* All facts regarding composition are based on complete quantitative analyses.

*Powder.*—White. Under the microscope has the appearance of crushed ice with snowy masses partially covering coarse transparent slivers. The powder was decidedly gritty between the teeth (the chemists' best test for degree of fineness) and not alkaline, showing perfect chemical union of constituents. *Composition.*—Essentially silicate of lime and aluminum containing lithium probably as phosphate.

*Liquid.*—A modified phosphoric acid. Perfect in appearance. No deposition.

**Cement No. 2.** *Powder.*—White. Under the microscope perfectly similar to No. 1. Decidedly gritty between the teeth, and alkaline, showing imperfect chemical union of constituents. Free lime. *Composition.*—Essentially a silicate and phosphate of lime and alumina containing free silica.

*Liquid.*—Imperfect. Thick crop of feathery white crystal aggregates on bottom. These dissolved with difficulty on standing container in hot water. The latter melted the parafin of the stopper and caused it to enter the fluid. *Composition.*—A modified phosphoric acid.

*Powder.*—White. Under the microscope similar to Nos. 1 and 2. Decidedly gritty and alkaline, showing imperfect union of constituents. *Composition.*—Essentially a silicate and borate of lime and alumina. Free lime.

*Liquid.*—Jelly with silicic acid. Gave off an acid vapor. No separation of constituents into varying products noticeable. *Composition.*—Essentially phosphoric acid with silicic acid and hydrofluoric acid. Alumina and silica not further examined.

*Powder.*—White. Under microscope similar to Nos. 1, 2 and 3. Extremely coarse and gritty. Alkaline, showing imperfect union of constituents. *Composition.*—Essentially a silicate of lime and alumina.

Allow me to introduce here an analysis of a product introduced about the middle of 1901:

*Liquid.*—A modified phosphoric acid.

*Powder.*—Silicate of lime and alumina.

Please note the similarity of constituents. The history of this first departure from the zinc oxyphosphate type is lamentable. The market was flooded with this product and promptly rejected by the profession as worthless, much to the financial distress no doubt of the manufacturer. The reasons given were mainly rapid disintegration and imperfect setting. Sample pellets of this product were placed on cards and scattered broadcast. On testing one of these six months after its receipt it was

## ITEMS OF INTEREST

found to be still strongly acid. This satisfactorily explains its rapid disintegration. The faulty setting qualities may have been due to too hot calcining. The natural inference then is that the trick of overcoming acidity and the discovery of proper calcining conditions account for the reinstatement of this type? Not at all. The simple statement of fact is that the reintroduction is due to one quality, namely translucence, a quality obtained by lowering the alumina contents and raising the silica, the effect of which will now be explained.

### **Summary of Analyses and Significance.**

What is silicic acid? A simple experiment in chemistry is the following: A water soluble silicate, namely water glass or sodium silicate, is made slightly acid with muriatic acid and placed in a cylindrical vessel, lower end open and the other end closed with a sheet of parchment or bladder. The cylinder and contents are then dipped into pure water, care being taken to have the surface of liquid outside the cylinder and inside on a level. The process of dialysis takes place, the silicic acid remaining in the cylinder and the sodium chlorid forcing its way through the parchment into the pure water. From time to time the outer liquid, salt water, is replaced by pure water, which again takes up only the salt through the parchment. Finally nothing is left in the cylinder but soluble silicic acid, which is now allowed to evaporate spontaneously. After some time a clear, thick, perfectly transparent gelatin remains, which is no longer soluble in water. It is this gelatin which imparts the translucency to the products under consideration, and the reason these are not transparent but only translucent is because powder unacted upon is incorporated with it. So much for the new feature of translucence.

In these cements the silicate of alumina and lime are acted upon by the modified phosphoric acid with liberation of silicic acid, and the final chemical product is a mixture of calcium and aluminum oxyphosphates admixed with transparent silicic acid. Furthermore silicic acid has no desirable properties. It is not a good binder, it has such slight acid properties that it can not be depended upon to take part in the neutralization of lime and alumina present, a feature decidedly wanting when that last final setting or neutralizing stage is considered; and finally it replaces valuable bases, such as lime and alumina, which could accomplish this. It is my firm belief that the undesirable feature of prolonged acidity is still possessed by all these products. Lack of time prevented me from proving this definitely.\*

\* These products, mixed prior to June 19, 1908, showed marked acidity August 11, 1908.



**Physical Tests.**

**Cement No. 1.**

*Mixing.*—The customary phenomena accompanying an oxyphosphate of zinc mix are wholly wanting. Instead of a stringy, sticky mass which can be drawn into inch-long thin threads, thereby showing good adhesiveness, a gritty paste or emulsion results, having comparatively slight adhesiveness.

*Expansion and Contraction.*—A steel tube filled with proper mix showed decided expansion while plastic. After covering with wax and allowing to stand twenty-four hours a noticeable contraction showed under the microscope.

*Hardness.*—Pellets covered with wax showed a decided tendency to chip after forty-eight hours. Pellets without wax covering perceptibly harder.

*Dye Test.*—Pellets immersed twenty-four hours after removing wax covering, first having been allowed to harden twenty-four hours, showed no penetration.

*Translucence.*—Good.

*Soluble matter* after thirty hours, two per cent.

*Acidity* after forty-eight hours, strong.

*Mixing.*—same as No. 1.

**Cement No. 2.**

*Expansion and Contraction.*—Same as in No. 1 with somewhat greater shrinkage in the end after twenty-four hours.

*Hardness.*—Same as No. 1.

*Dye Test.*—Same as No. 1.

*Translucence.*—Very good.

*Soluble matter* after thirty hours, five and ninety-seven hundredths per cent.

*Acidity* after forty-eight hours, strong.

*Mixing.*—Same as Nos. 1 and 2. Considerable

**Cement No. 3.**

heat evolved. Set quickly.

*Expansion and Contraction.*—Noticeable shrinkage after twenty-four hours.

*Hardness.*—Same as Nos. 1 and 2.

*Dye Test.*—An unprotected pellet placed in dye after one-half hour disintegrated. Protected pellet with protecting covering removed after twenty-four hours, badly penetrated in twenty-four hours more time. Pellet semi-translucent.

*Soluble matter* extractable after thirty hours, sixteen and six-tenths per cent. This result is probably low. It is mainly due to the boric acid liberated by the liquid in the mix.

*Acidity* after forty-eight hours, strong.

## ITEMS OF INTEREST

**Cement No. 4.** *Mixing.*—The jelly-like liquid does not prevent the mix from taking on a very gritty feel under the spatula. Considerable heat evolved.

*Expansion and Contraction.*—None noticeable.

*Hardness.*—After twenty-four hours under protective covering quite readily cut.

*Dye Test.*—Perceptible penetration. Pellet semi-translucent.

*Soluble matter* extractable after thirty hours, eleven and four-tenths per cent.

*Acidity* after forty-eight hours, strong.

It is evident that Nos. 1 and 2 depend on silicic acid liberated from the powder. In addition No. 2 contained uncombined silica, probably as quartz filler.

No. 3 depends on the powder also for silicic acid, but in addition contains boric acid, probably bound as calcium borate, from which boric acid is liberated in mixing. Boric acid is positively prohibitive. It has been used in some of the oxyphosphate of zinc cements.

It is also noticeable that the liquids have not materially changed from the former types.

An addition of one per cent. of lithium oxid (No. 1) is probably immaterial and its introduction is probably for the novelty of it.

With the exception of No. 1 powder the remainder are alkaline and are capable of absorbing carbon dioxid, forming carbonate of lime when exposed to air or left uncovered.

**Conclusion.** What then has been accomplished in these new products? Let us weigh the evidence.

Standard A—Inferior to former good cements.

Standard B—Inferior to former good cements.

Standard C—Inferior to former good cements.

Standard D—Probably inferior to former good cements.

Standard E—Probably inferior to former good cements.

Standard F—Inferior to former good cements.

Standard G—Equal to former good cements.

Standard H—Equal to former good cements.

Standard I—Inferior to former good cements.

Standard J—Superior to former good cements.

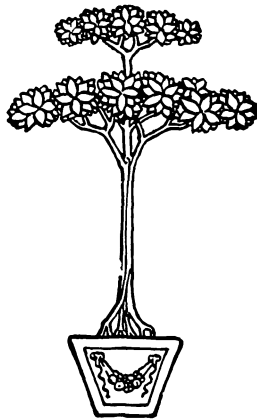
What has been gained? Translucence. What has been lost?

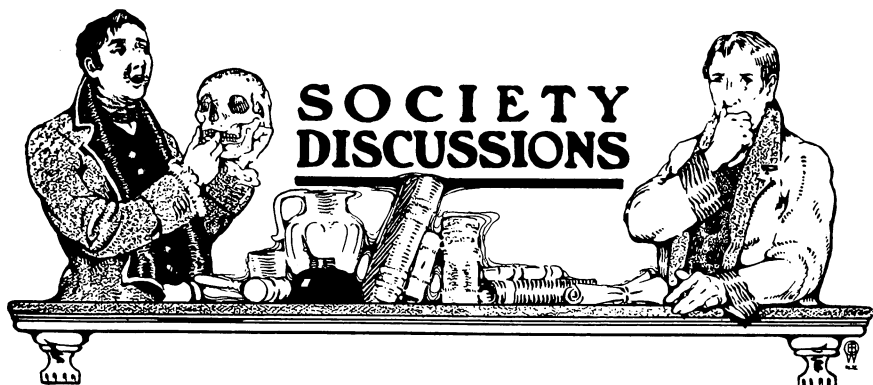
**Cement No. 5.** This probably is the same cement as No. 2. The sample analyzed had no distinctive name. If not the same product, it was at least so close an imitation that no further facts were learned.

**Cement No. 6.** This was a highly colored, extremely fine oxyphosphate of zinc for crown and bridge work. It contained a small percentage of bismuth oxid probably as sedative. In composition it does not differ from ordinary cements on the market, but its fineness of powder imparts to it some excellent qualities.

**Cement No. 6a.** This was perfectly similar to No. 6, differing slightly in composition of powder, which was light colored. Recommended for inlay work it probably depends on its extremely fine powder for its success over similarly constituted products.

**Cement No. 7.** This is an oxyphosphate of copper, and differs mainly from former products of their class by the introduction of a small quantity of nickel into the liquid and a small quantity of nickel oxid and a liberal amount of cobalt oxid into the copper oxid powder.





### **New Jersey State Dental Society. Thirty-Eighth Annual Meeting.**

---

The thirty-eighth annual meeting of the New Jersey State Dental Society was held at the Casino, Asbury Park, July 15, 16 and 17, 1908. President Woolsey called the meeting to order.

Rev. Dr. Taylor, of the Presbyterian Church, Asbury Park, delivered a prayer.

President Woolsey stated that the Mayor of Asbury Park had been expected to deliver an address of welcome at this time, but owing to his unexpected absence, the address would be made at the evening session.

The secretary then called the roll, and a quorum was found to be present.

The president then called Vice-President Gregory to the chair.

Vice-President Gregory announced the next order of business to be the annual address of the president.

President Woolsey then read his address.

On motion the president's address was referred to a committee, consisting of Drs. Stockton, Luckey and Brinkman, with instructions to the committee to report later, at which time the president's address would be discussed.

Secretary Meeker read a communication from the Louisiana State Dental Society inviting the appointment of a committee to investigate pyorrhea alveolaris in all its branches; this committee to co-operate with a similar committee of the Louisiana Society looking toward eventually obtaining government aid for the prevention of the disease.

## SOCIETY DISCUSSIONS

On motion the above report was received and it was resolved that a committee be appointed as suggested.

President Woolsey said that he would announce the committee later.

Dr. Fowler, from the Membership Committee, reported the following applications for membership:

Dr. Solomon Freeman, New York, N. Y., sponsors Drs. Meeker and Hind; Dr. F. William Nuffort, Newark, N. J., sponsors Drs. Holden and Gregory; Dr. Edward L. Wharton, Newark, N. J., sponsors Drs. Truex and Barber; Dr. W. H. Sutherland, Orange, N. J., sponsors Drs. Hawley, Sanger and Chittering; Dr. Norman H. Morrison, Harrison, N. J., sponsors Drs. Barlow and Fowler; Dr. J. H. Wagner, Elizabeth, N. J., sponsors Drs. Woolsey and Wakefield; Dr. Eugene S. Griggs, New Brunswick, N. J., sponsors Drs. Iredell, Hull and Rice; Dr. Harry W. Soodars, Phillipsburg, N. J., sponsors Drs. Holden and Fowler; Dr. George C. Young, Newark, N. J., sponsors Drs. Fowler and Meeker; Dr. Walter F. Barry, Orange, N. J., sponsors Drs. Fowler and Sanger; Dr. Jos. Elin, Newark, N. J., sponsors Drs. Fowler and Hind; Dr. Edward T. Taylor, South Orange, N. J., sponsors Drs. Baldwin and F. W. Rightmire.

On motion the above applications were referred to the Membership Committee.

On motion of Dr. Meeker the meeting then took up the amendments to the Constitution and By-Laws recommended by the Legislative Committee to be acted upon July, 1908, and other recommendations by the Executive Committee, which are as follows:

To amend Article III of the Constitution and By-Laws, "There shall be a Legislative Committee consisting of (5) five members appointed by the president. The first committee to be appointed to consist of one member to serve one year, one for two years, one for three years, one for four years, one for five years, after which a member of the committee is to be appointed annually to serve for five years."

Article V to be abolished. By-Laws to be amended in Article I, creating section 7th to read: "*Duties of the Legislative Committee.*—The duties of the Legislative Committee shall be to hold meetings during each session of the Legislature and advise officers of the society in reference to all proposed legislation affecting the status of existing dental laws. They shall have the power, when directed by the State society at a special or regular meeting, to prepare and introduce such amendments or changes in the dental laws of the State as may be recommended by the society."

To amend Article XI to read, "Amendments to the Constitution and By-Laws must be presented in writing to the secretary ten days prior

## ITEMS OF INTEREST

to the annual meeting, the same to be acted upon at said meeting, a two-third vote of all members present being required to adopt the amendment."

The Executive Committee also recommends that the initiation fee of \$5.00 be abolished to all members of local societies in good standing.

Recommended that a committee be appointed to secure a membership certificate to be used for active and honorary members.

The adoption of the foregoing amendments was regularly moved, seconded and carried.

President Woolsey stated that a communication had been received from the National Association on the subject of a memorial to the late Dr. Miller, of Berlin.

On motion resolved that a committee of three be appointed to deal with the above subject.

On motion adjourned until 8.30 P. M.

### Evening Session.

President Woolsey called the meeting to order.

On motion, there being a quorum present, roll call was dispensed with.

The president then introduced Hon. T. Frank Appelby, Mayor of Asbury Park, who delivered an address of welcome.

President Woolsey then introduced Dr. Joseph P. Root, of Kansas City, who read a paper entitled "Evolution, Prophylaxis and Other Things."

### Discussion of Dr. Root's Paper.

**Dr. R. Ottolengui,  
New York.**

I did not expect to open this discussion on prophylaxis, and I have been wondering all the evening by what inspiration I appeared here to-night in white. (Laughter.) But I think the fates must have known I should be called on to talk about prophylaxis, and therefore influenced me to put on one of my white enameled suits. (Renewed laughter.)

I was somewhat surprised to hear Dr. Root say that he had been making splints for loose teeth for a good many years, and had never seen but one made by any other man. I have been to a great many dental meetings in my time, and the one which leaves the strongest impression on me because of its startling and revolutionary features was that of the Odontological Society when Dr. Taggart first showed us how to make cast gold inlays. At a meeting of the First District Dental

## SOCIETY DISCUSSIONS

Society, which was almost as sensational, held in the Masonic Temple—I hate to say how long ago, because someone told me to-day that I am “looking younger than ever” (laughter), but it was quite a long time ago, Dr. Rhein showed his method of splinting teeth. That, I believe, is the first recorded case of a genuinely prophylactic method of splinting teeth, and yet I have noticed in my experience as a journalist that it is seldom or never referred to, and that almost everyone who is now splinting teeth—like all of those who are making cast gold inlay machines—seems to think it is something entirely original with himself. It does not seem to me that this is just exactly fair. I remember that meeting very well, and I remember it because of this incident which occurred: after Dr. Rhein had shown his pictures and his models a gentleman, whose name I am glad to say I have forgotten, arose and said that it was a very wonderful and beautiful theory, but for one he could never believe it, because it was very well known that such things shown on models might look very different if the mouth could be seen; whereupon a gentleman arose in the audience and said that he was so astounded that a remark of that kind could be made, that while he had only come to see how Dr. Rhein’s confreres would receive the history of the case, he, being the patient, felt after that last statement that he owed it to himself and to Dr. Rhein to allow the assembled audience to look at his mouth, and he then permitted everyone present, who desired to do so, to look at this remarkable case—and he was a prominent merchant of New York City.

So you see it is not so novel a thing for us to hear that it is a good idea to splint teeth together if they happen to be loose. I am glad, however, to learn that the idea has permeated so far into the West (laughter and applause).

**Dr. Register,  
Philadelphia.**

I am very much surprised to receive a call to discuss this paper. The subject of oral prophylaxis is an extremely interesting one to me, one that has claimed my attention for a great many years. The more I have investigated the subject the more I am convinced that it is to be the coming practice of the scientific dentist. We need not, any of us, fear, because in this way we can anticipate caries of the teeth, that it is destined to curtail our practice. We must realize in the treatment of prophylaxis, orally applied, that caries of the teeth is a disease, and we must not only treat it directly in our operative work as a disease, but in all our work we should practice preventive dentistry on the basis of anticipating a perverted natural or physiological condition. That applies not only to caries, but to other diseases as well. That is, pathology of the roots of the teeth, which we might as well speak of as

## ITEMS OF INTEREST

pyorrhea. The more I have investigated this subject the more I am inclined to think much can be done outside of the mechanical effort in our anticipation of caries of the teeth. The mechanical part, that part of the surgical operation which confines itself to instrumentation, it has been my experience, can be largely anticipated by the use of medico-chemical applications. We know to-day that a tooth can not decay except from an external causation; we know before a tooth can decay we must have an environmental condition such as has been so beautifully described by Miller, Black, Andrews and others; and that if we can control this environment then we have the situation in hand. If we can not control that, that is, the germ forces that are in the mouth always, then we have a tooth actually destroyed through the disease causing bacteria under a condition that permits it—for there are conditions when people become immune, and under such conditions you, through prophylaxis, place the mouth in an immune condition.

If you will take any mouth that is looked after by the ordinary hygienic methods among your patients, and will use such remedies as some of the new salts of silver, as, for example, that which is placed on the market under the head of hyderol; and if you use potassium iodid in connection with that, I do not hesitate to say that there is no bacteria but that can be absolutely destroyed, and if the process of caries has gone so far that it has destroyed the interprismatic substances more or less of the enamel, you can check it, you can hold it in abeyance, which is far beyond anything we can do in a mechanical way. All of these conditions, instrumentation and everything else, I believe in using—everything and anything that is useful; but if we can save our patient's teeth and keep the perfect beauty of the organ intact simply by anticipating this environment which is so constant and so persistent, I think it is our duty as professional men to look upon this subject from a bacterial standpoint, rather than from anything that can be accomplished through mechanical means. (Applause.)

Dr. H. W. Farlan, New York. Dr. Root is an example of the title of his subject, because he started in a small way in a small part of the country, and he has grown up into one of the largest personalities in that part of the country, and I am very glad to recognize him, his work and the virility of his ideas.

The saving of teeth is as important as the saving of the eyes or ears, or any other of the organs of the human body, and it was with great pleasure that I listened to his paper. The essayist may have presented some specimens of splinting of teeth which are not in accord with those that now obtain, but I was present at a meeting in Chicago in



## SOCIETY DISCUSSIONS

1876, when Dr. G. W. Nichols, of Chicago, presented a system of splinting teeth before the Chicago Dental Society, which was published shortly thereafter, and I think it ought to be familiar even to a dental editor like Dr. Ottolengui. If he did not happen to see it, why that is his misfortune, and if he never heard of it, it is his still greater misfortune. But that was not the beginning of the splinting of teeth. It is referred to in the work of M. Aggiolo, published in 1807, not only in the text, but by illustrations, and the matter published by Dr. Barrett in the *Independent Practitioner*, from Etruria, shows the splinting of teeth by gold bands, etc., so that there is really nothing new in that. The only difference is that we do it in one way and they did it in another; they did not have oxyphosphate of zinc in those days to use as cement, but they had mastic and other gums, and if they did not use them they used pegs or wires. So there is nothing we can speak of that has occurred within the last ten, fifteen, twenty or thirty years, that is absolutely new. The cleansing of teeth, the removal of deposits from the mouth, the boring of holes through teeth to hold them together—all of those things are according to the conception of the individual who does them. What everyone does is to try to save the teeth. Even in those days, one hundred, two hundred or three hundred years ago, if they found malocclusion they filed the teeth off and rubbed them down with bones and stones, etc., so that when the teeth came together there was not undue pressure on one side or the other. The uses of medicines and drugs and powders and substances of that kind are old. If Dr. William H. Trueman were here he would tell you exactly when everything of the kind was invented or discovered or used or practiced.

**The President.**

Dr. Trueman is here.

**Dr. Farlan.**

I am glad he is here so that he can supply that information. But all of the old works contain reference to those things. We have simply come to a period in the practice of dental surgery when we get better results because we understand the use of antiseptics, disinfectants and substances of that kind, and the uses of instruments have been so much perfected within the last hundred years that we are able to save teeth now that formerly were lost.

I am very pleased to say that I think Dr. Root's paper will be of great benefit to the members of this society as well as to the profession at large.

**Dr. Schamberg,  
New York.**

I scarcely feel qualified to discuss this subject in the manner that you would probably have me discuss it, that is, taking up those subjects that would be of technical value to you. So I have decided to



## ITEMS OF INTEREST

confine what I have to say to the manner in which the subject was presented.

I was more than entertained, I was kept interested throughout the entire talk of Dr. Root, and I feel convinced that if he applies the same method in instructing his patients that it would be a pleasure to them to return, even as frequently as our friend Dr. D. D. Smith advocates!

I feel that the essayist has presented the subject in a manner which calls for no criticism for the reason that he made no claim whatever for originality. That has been the bugbear of this entire subject of prophylaxis. That is where Dr. D. D. Smith made his mistake. Dr. Register I know was practicing prophylaxis long before Dr. Smith came out so strongly advocating it as something practically new, or a method of his own; and I know too that Dr. Rhein had been practicing it for many years then, and I dare say if we were able to go back personally through intimate relationship with the men referred to by Dr. Harlan we would find those men were practicing similar methods, if not the same, and for those reasons I say the essayist will do more good by bringing the subject before the profession and before the public in the manner that he has, for the reason that he has made no claim of originality.

What do we care who originated it, at the present time? What we want to do is to apply it, and there is no question but that prophylaxis, properly applied in the direction of the prevention of caries, in the prevention of many of the diseases we have to cope with, works a world of good, and I feel that if we could extend our knowledge of the benefits that accrue from prophylactic methods to the lay public, and not alone to the public as individuals, but the public as office holders, to the mayors of towns, to the councilmen and so on, the effect would be so great that they will regard as necessary the inspection of school children's teeth and would consider the effort to have this result achieved by the dental profession as a humanitarian act rather than as springing from a selfish motive. Unfortunately the idea seems to have arisen that in urging this matter we are trying to create work for ourselves, and if we are constantly claiming originality for our methods and trying to claim credit for the progress we are likely to further encourage that feeling.

The point is for us to get down to the true situation—the immense amount of work that can be avoided by prophylactic methods. Just as vaccination had to be forced upon an ignorant public, so we shall have to force methods of prophylaxis. Years ago all sorts of evil were attributed to the introduction of the virus of vaccine for the prevention of smallpox; to-day it is a recognized truth that it is of immense value. So, many of

## SOCIETY DISCUSSIONS

our patients to-day will also say that their gums after a cleansing feel more sore than they did before, but they are glad to acknowledge the benefits received from the treatment in the end. So it is with the public, it is hard to make them realize the importance of this work and it rests with such assemblages as this to enforce that knowledge (applause).

I am very proud to-night of my baby, the New Jersey State Dental Society. When I contrast such a paper as we have had to-night—and a gentleman coming not only hundreds but thousands of miles to read this magnificent paper—with the meetings that we had thirty-eight years ago, I am indeed proud of the New Jersey State Society.

The members of this society are very greatly indebted to Dr. Root for this broad and very interesting paper. It will not simply fall upon our ears to-night, but will have an influence in our practice in the days and months and years to come.

I believe that if everyone will take the time that Dr. Root has advocated, two minutes in the morning and two minutes in the evening, for brushing their gums and teeth thoroughly, the result would be very satisfactory. I often say to my patients that if they have not time to brush the gums and the teeth, then keep the gums in a healthy condition and they will not lose their teeth. I believe if that were done thoroughly by the people, especially in connection with the benefit which will arise from the teachings of the public schools, in a little while the loss of teeth by pyorrhea, or whatever name we wish to call it, would be eliminated and people would not lose their teeth.

I desire to allude to a reference the essayist made to the discussion of a paper before the Academy of Stomatology, in which the words "dental scavenger" were used. The paper was on pyorrhea alveolaris, and it was the opinion of the essayist that the proper manipulation of a set of instruments was alone necessary to cure pyorrhea alveolaris. The gentleman referred to who took part in the discussion stated that we have had so much of this thing, with no more light than at first, that he thought it was necessary to go into the investigation more thoroughly in order to discover some other cause for pyorrhea than a filthy condition.

I am afraid the essayist may misconstrue my last remark. I did not at all mean to convey the idea that Dr. Root has claimed that he originated the idea of splinting teeth.

As to Dr. Harlan's statement that I claim for Dr. Rhein that he is the first man who first tied two loose teeth together, I will say that I did

not say that either. I do not happen to know what Dr. Nichols did in 1876, because I started to practice dentistry in 1879. But several years after I was in practice it occurred to me it might be a good thing to read the *Dental Cosmos* from the first volume to the last, and I do not happen to remember having seen that Nichols splint in it. That does not prove it was not mentioned, and whether the Etrurians and Egyptians and other heathens tied teeth together with other things or not, that is not what I mean by splinting teeth. The departure made by Dr. Rhein was that his was a *prophylactic* splint; a clean splint, and an easily cleaned splint, instead of the usually dirty contrivance, which resulted from the ordinary ancient method of tying teeth together, and unless Dr. Nichols' splint was something radically different from what I imagine it to have been, I still think that Dr. Rhein's was the first prophylactic splint; and if it was not, there was a number of men in that audience when he showed it, old men, all of whom gave him credit for having originated a prophylactic splint. I believe that Dr. Harlan himself was there, and I do not remember his mentioning the Nichols splint then.

I am very glad Dr. Harlan took exception, in a kindly way, to any claim I might have made to originality. That bugbear of originality in dentistry is a great drawback. I did not make any claim to the splint, and Dr. Ottolengui's remarks as to what might happen to be new in the far West do not apply to me very heavily; most of my patients are from the far East (laughter). We are filled up with Eastern people; we have our fair proportion of millionaires, we have more than our fair proportion of intellect, because it is the intellectual people who have sense enough to go West (laughter), but without intending to exaggerate at all I will make a true remark: that the intellect of the West is of a higher grade than the East as a whole, for we have not that influx of foreign immigration that you have; for the man who immigrates and has money comes to us, while the man who immigrates and has not money stays here, so we are intellectual, and I make the statement again: I never saw a splint put on by anybody else and I never had one in my office, and probably have had my fair proportion of such cases. I have read about them, and while the system I have, as suggested by Dr. Harlan, may be antique, I say it is better than any of the modern systems I have seen. Some of those splints that are adapted to a deciduous tooth are not adapted to other teeth, especially where the posterior teeth are gone.

I do not know anything about Dr. Rhein's splints; I never heard of him until yesterday (laughter).

Dr. Register referred to the salts of silver. I did not say anything about that; there are a great many things I did not say anything about,



## SOCIETY DISCUSSIONS

but I could talk to you about salts of silver as one of the things I learned and have never forgotten.

The fact of the educating of the people being essential reminds me of another thing I did not mention, and that was with regard to the action of the National Association. I believe we, as dentists, must educate the people through our national, State and local societies, and very little incentive has come from the National Association. They have been attempting it for several years, and a year or two ago at Minneapolis the report of their committee on hygiene covered thirty-nine pages; it was in the form of a booklet to be published and sent out broadcast throughout the United States to educate the people. It told how little Johnny, if he fell down and broke his tooth off, should pick it up and take it home to his mother, who would take him to the dentist and have it put back. Absolutely that was in the report, I assure you, and the whole report was on a par with that.

We are to have a new report this year, and I had the pleasure a week ago of assisting a new committee which is working on that report, which will be presented at Boston week after next, which will cover two pages instead of thirty-nine. Then we, as State associations, must take that up, and I can go before a school board or to the daily paper and get them to do something; the daily paper to advertise it and the school board to allow us to come before the school and teach these things, and we need not be afraid of adverse criticism, because we will be doing it because the National Association is pushing it.

I thank you for your attention and for the kind words that have been spoken here and I am truthful enough to say that I am honest enough to think that you over-estimate the paper; there was nothing original except possibly the style of it; but I believe in presenting a paper, whether on a serious or any other subject, in a light in which it will be listened to, if not understood or appreciated. My idea was to make it a little different from others.

On motion of Dr. Meeker a vote of thanks was extended to Dr. Root for his very interesting and valuable paper.

Adjourned until Thursday, July 16, 1908, at ten o'clock A. M.

## ITEMS OF INTEREST

**Thursday, July 16th, 1908. Morning Session.**

President Woolsey called the meeting to order.

On motion, a quorum being present, the calling of the roll was dispensed with.

The report of the committee on president's address was presented by Dr. Stockton, as follows:

Mr. President—The committee to whom the president's address was referred beg leave to report that they believe the old way, as has been the custom for some years past, of discussing the address immediately after its delivery, to be the better way and that a better discussion can be had while the matter is fresh in the minds of all.

The recommendation of the president in regard to the reorganization of this and the local societies, to the effect that a larger committee be formed, and that the whole subject go over for another year, is approved, with the suggestion that a majority of the committee shall be members of this society.

We heartily commend the effort of the president to increase the membership of the society and hope his recommendation, that every member endeavor to secure one new member in the next year, may be heartily concurred in.

Your committee recognizes the fact that dentists are rarely called upon to do jury duty, and the subject is of scarcely sufficient importance to ask legislative action.

In regard to the subject of examination of the teeth of the children in our public schools, your committee recommends the creation of a regular committee of the society, whose duty it shall be to bring the matter before the various school authorities of our State and to ask their co-operation, and the committee shall formulate a plan as to how this important matter may be successfully accomplished.

C. S. STOCKTON,  
B. F. LUCKEY,  
M. R. BRINKMAN,  
Committee.

On motion the above report was received.

### **Discussion of the Report of Committee on President's Address.**

**Dr. Stockton.** I do not wish this report to go by without any discussion, and I wish to emphasize the point that we should have enough interest in our president and what he has to say to us, to make some effort to be present at the opening of our society's meeting.

## SOCIETY DISCUSSIONS

While this is not perhaps germane to the president's address, still while I am on my feet I may inject one thing which strikes me very forcibly and probably strikes you all very forcibly this morning—the fact that we had to wait here for a long time before the meeting could be started, and that we began an hour and a half behind time.

I would suggest to the committee having charge of our good friends, the exhibitors, that the exhibits should be closed at the hour when the society is supposed to come to order (applause). If that can not be arranged in a gentle manner, make it so that their exhibits shall be cut out and they will not have any more opportunity to show their goods unless they comply with the conditions under which they rent the spaces.

In regard to the matter of the president's address and recommendation with regard to the examination of children's teeth, that we have a regular permanent committee whose business it shall be to take this matter up and do something, I think is of very great importance. It has been referred to a number of times in our presidents' addresses heretofore, and in various other ways, but nothing has come from it yet, although it is working itself out gradually. If we have a live committee to take that matter up with our State superintendent of schools, our public school commissioners and other school authorities throughout the State, something will be done.

I trust that a permanent committee of this society will be appointed to take charge of this matter.

As to the recommendation of going back to the old plan and discussing the president's address at the time it is given, if that were known to be the rule the members would be here promptly to listen to it. The committee makes that recommendation in all good faith, and hopes that hereafter the president's address may be fully and completely discussed at the time of its delivery.

Concerning the recommendation as to the reorganization of our society. We have gone along very well under our old constitution and it may be that it can not be improved; I do not say by any means that it could not be, but let the State societies that are following out the plan of the Illinois State Society—I think the New York State Society has taken it up, among others—let them try it and let us see how it works out. We have done very well in our State so far and the amendments adopted yesterday will help things along. But certainly if it is to be reorganized let the members of this society organize it, not some local societies who are outside of our State society. I think we have gone far enough and have succeeded well enough to warrant us in asking that if there is to be a reorganization we do it ourselves (applause).

## ITEMS OF INTEREST

**Dr. Cuckey.**

I do not think perhaps it is necessary for me to enter into this discussion now.

Dr. Stockton has given my views very clearly and succinctly, but there are one or two points I might touch upon, inasmuch as the president has done me the honor of calling upon me.

The one principally in my mind is the matter of the so-called reorganization of this State society. I did not know until very recently the society needed reorganizing. I thought it was a healthy, vigorous and wonderful society. We have been accustomed to hold it up to the dental world and the world at large as the most prosperous and vigorous dental society of America, and nobody has ever denied it unless he did it very quietly in his own society.

It seems to me, however, to be the desire of some of our members that we have a large roster, a large roll of membership. What for, I do not know. What advantage it could be I can not see, but it seems to me that with a vigorous and healthy organization the parts that make up the whole should be healthy, strong and vigorous forces. That we should be made large in numbers for the sake of being large I can see no advantage in. We are willing to accept as members all dentists practicing in the State of New Jersey, of good ethical standing and character, and glad to welcome them if they wish to come in, but from a personal standpoint I do not want any man as a member of this society who has to be coaxed or who does not wish to join it. That men should be made members by reason of their membership in some local society does not seem to me to be a healthy move in building up this body (applause). Let us use our best endeavors, each and every one of us, to seek the admission of men whom we know to be worthy and who ought to be members. If it is logical to build this society up through the membership of local societies, then let me ask why is it not just as logical to so build up the National Society by reason of the membership in the State societies? It seems to me that is the only logical way to carry this scheme out, and if it is logical, why are not we as Jerseymen more numerously represented in the National Society? We have practically to-day in the State of New Jersey some eight hundred dentists and we have a membership in the National Society of just four. Just think of it, there are four members of the National Dental Association practising their profession in the State of New Jersey (applause).

**Dr. Waldron.**

I feel it my duty to say something in regard to the school committee. Dr. Stockton says we ought to have a live committee. I think we have one. We have accomplished a great deal in Elizabeth, and although we have not



## SOCIETY DISCUSSIONS

accomplished so much in Newark, a great deal of credit is due to Dr. Fish for the work he has done and the trouble he has gone to there. I would like to hear Dr. Fish on that subject.

I understand that the matter of the reorganization of this society is to come up to-morrow. Unfortunately I can not be here to-morrow, and since I am here now I would like to say a word on the subject.

There is no doubt all that Dr. Luckey says is true enough, that this society has been very successful with its present methods, but my belief is that the New Jersey view is broader than that suggested and that it will take a broader view as soon as the matter is properly brought before it.

The real point is this: Only in a very limited sense is the New Jersey State Dental Society a State society at all; in a much more limited sense is the National Dental Association a national organization. It is only true in this sense: the National Dental Association is a national body because it meets in various parts of the country and because its membership is restricted to American citizens. The New Jersey State Dental Society is a State organization in the same sense, simply because its membership is restricted to residents in New Jersey, but the New Jersey Dental Society is not a State organization in the sense that the State Medical Society is; that is, it does not contain within its body all of the men within the State who are minded to be affiliated with an organization, and it is only by having upon your roll the entire list of ethically minded dentists that you would become a real State organization. Again, it would only be by having on the list of the national body the entire list of the State societies, organized in that way, that we will ever have a real national dental organization, and until we do have such an organization it is absolutely foolish for us to expect legislators in the various parts of the country to pay more than a mere passing attention to us when we send requests to them. If the American Medical Association asks for anything in Washington, every one listens to what it says. The National Dental Association is as the voice of a child; whenever you speak to a Senator or Congressman in Washington concerning anything the National Dental Association wants, you get but scant attention, because that association is nothing but a small body of probably six hundred men scattered throughout the country, whereas it ought to be a body composed of every ethical dentist in the United States. And the only real plan by which the future real national organization can ever be procured is along the lines now being promulgated. But you stop the whole ball from rolling if a State says "We do not need it"; for then the National Society will have to admit that they can not carry out the plan to make themselves a truly national body for the reason that the State societies are not organized in such a

## ITEMS OF INTEREST

way as to be truly representative of their States. If a dozen or more State societies would reorganize along the lines of the Illinois plan, then in a short time you could easily say to the present national body, "Re-organize along the lines of the local and State associations, or these State societies will organize a real national dental association to replace you."

Gentlemen, that is the real milk in the cocoanut (applause).

I move that the report of the committee on president's address be the sense of this body, and that the committee therein recommended be appointed by the president or by the vote of this society.

The above resolution was regularly seconded and carried.

Dr. Fowler, of the membership committee, presented the following applications for membership:

Dr. Harry T. Deane, Orange; sponsors, Drs. Brinkman, Luckey and Hind.

Dr. Elwood A. Curtis, New York; sponsors, Drs. Brinkman, Luckey and Hind.

Dr. H. J. G. Marashlaian, Jersey City; sponsors, Drs. Crater and Hind.

Dr. Angelo Zabriskie, Paterson; sponsors, Drs. Claypoole and Luckey.

Dr. Franklin Howard Ellis, Burlington; sponsors, Drs. Irwin and Jacquette.

Dr. Joseph C. Conover, Newark; sponsors, Drs. Gould and Fowler.

Dr. Edwin T. Fisher, Weehawken; sponsors, Drs. Meeker, Sutphen and Hind.

Dr. M. V. Marcellus, Manasquan; sponsors, Drs. Iredell and Fowler.

Dr. J. Rollin Teed, Roseland; sponsors, Drs. Meeker, Sutphen and Hind.

Dr. Herman B. Cohen, Orange Valley; sponsors, Drs. Hind and Meeker.

Dr. Joseph Kussey, Newark; sponsors, Drs. Rightmire and Gregory.

Dr. J. B. Stephen, Elizabeth; sponsors, Drs. Adelberg and Breen.

Dr. Edward D. Frost, Elizabeth; sponsors, Drs. Adelberg and Breen.

Dr. George H. Hague, Elizabeth; sponsors, Drs. K. Neff and Graft.

Dr. Harry Epstein, Elizabeth; sponsors, Drs. Adelberg and Breen.

Dr. H. M. Dunn, Elizabeth; sponsors, Drs. Adelberg and Breen.

Dr. Joseph Whymann, Elizabeth; sponsors, Drs. Adelberg and Breen.

Dr. Hugh F. Fox, Newark; sponsors, Drs. Irwin and Hind.

Dr. Moore Stevens, Atlantic City; sponsors, Drs. Woolsey and Hind.

On motion the above applications took the usual course.

The president then introduced D. Willard Flint, D.D.S., of Pittsburg, Pa., who presented his paper.

### Discussion of Dr. Flint's Paper.

**Dr. Ottolengui.**

I remember once at a meeting of the Southern Dental Association in Atlanta the discussion was about the treatment of some trouble, and a great deal of argument was heard as to heredity in connection with the matter, and Dr. Atkinson agreed with that theory, but some one in the audience said that if Dr. Atkinson's views were correct it would then be necessary for us to treat the grandparents of patients, and Atkinson immediately replied, "Why, that's exactly what we are doing, treating the grandparents of the patients of the dentists of the coming generation."

I wish for a moment to touch on the subject of heredity with reference to malocclusion. No one knows the final word on that; it has not been proven that heredity plays any part in the production of malocclusion, neither has it been disproved; but there is a multitude of statistical evidence to show tremendous similarity between the malocclusions of children and their parents.

It is a common occurrence that specialists see a peculiarity of a definite tooth in a definite arch traced back through three or four generations. That may be an accident and yet it is possible that it may not be an accident, and I want to say just one thing in order to leave it with you as something that you may think about.

If it be possible that malocclusion can be transmitted, then is it absolutely necessary that the correction of malocclusion shall be made before the children reach the procreative age.

In other words, if it is possible that malocclusion can be transmitted, then it seems to me that if we can correct that and rearrange on the normal lines and normal places the teeth of that individual, we lessen the possibility of that individual's transmitting his malocclusion and deformity by making the correction before the procreative organs are fully developed.

**Dr. W. W. Walker,** Mr. President—I am very glad indeed to have had the pleasure of listening to the very delightful paper by our friend from Pittsburg. I am not an  
**New York.** orthodontist, but I expect to become one very soon.

The time is fast arriving in this great country of ours when it will not be necessary for dentists to send cases of this kind to specialists, for we are going to place in the hands of all dentists in the country means by which they can in time do their own work as orthodontists.

The First District Dental Society, to which I have the pleasure to belong, has instituted a series of sections; and by October we expect to have a full-fledged school on eclectic orthodontia.



## ITEMS OF INTEREST

That is why I admire this gentleman from Pittsburg, because he does not pin his faith on any one man or system, for he turns to every man who knows something about orthodontia for the means to accomplish his end.

But last winter in New York city a little club called the Study Club—that is just what it is, a study club—thought that orthodontia was a good thing and started a class. They had our friend, Dr. Ottolengui, as principal and professor, and I have been told by a gentleman who is a member of that class that the lectures were very helpful.

One reason why the First District Dental Society is taking up this subject of orthodontia is because I think in one way it was re-born, if I may use that expression, in that society. When you go back and look at the work done by our dear old friend, Norman W. Kingsley, one of the greatest dentists of the world and ex-president of our society, you will recall his achievements in this respect, and we all feel that he has left to us as a legacy the carrying on of his work. Then there is another man, perhaps not as modern as some, Dr. J. N. Farrar, than whom no one has ever done better work in that line, who is with us; then again we have Jackson, and we all know what he has done and is doing. As I say it was a legacy to our society and we keep on studying orthodontia and have issued a little pamphlet or circular to the members of the dental societies of New York and New Jersey, saying to them that they are welcome to join this school. That takes in the first and second districts of New York and the combined societies of New Jersey. I say to you from New Jersey that it is not necessary to give any kind of reference to us at all in order to join this school, simply say you are a member of any of the Jersey societies and you will be as welcome as the flowers in May (applause).

While I do not wish to take any of the perquisites away from the specialists, yet we want you all in time to be orthodontists and there is no reason why you should not be.

Now there is just one thing I wish to ask the doctor from Pittsburg. These beautiful pictures that are thrown on the canvas are all right and, of course, he has done the work, but I would like to have him, or some one, on some future occasion when he presents two or three wonderful cases of malocclusion, to show what he has accomplished—to tell us just how he did it (applause). It is easy enough to get all these casts and have the occlusion properly made. I do not throw the slightest reflection upon this gentleman, because I know he is one of the best in the country; I know it myself and through my friends Dr. Ottolengui and Dr. Rhein, but it would be more interesting to us dentists, non-orthodontists at present, if when you show a cast of that kind you tell us how you accomplished the result—by use of the Ottolengui plan, the Jackson plan, the



## SOCIETY DISCUSSIONS

Farrar plan or Dr. Kingsley's, and say that you do it this way, or that way, or the other way. We could get along with four or five cases if you would show us how each case was treated and the appliances used to accomplish the work and how the thing was done. Am I right or am I wrong?

**Several Members.**

You are right.

**Dr. Ottolengui.**

Dr. Walker asked the audience if he was right or wrong. The audience said he was right—and the audience is wrong. If Dr. Flint had undertaken to put one of these pictures on the canvas and explain how he did it, so that you could all understand what his purpose had been and how he accomplished it, he would not have had time to read any of the rest of the paper.

**Dr. Walker.**

One is all that we want.

**Dr. Ottolengui.**

Then you ought to engage Dr. Flint to give a lecture to a class rather than ask him to read a paper on the general subject.

The point is just this, orthodontia is no longer a haphazard proposition, whereby a set of teeth is regulated according to the ideas of the man doing the work. Teeth are regulated according to diagnosis, prognosis and a definite system of classification, and the only departure is where some peculiarity in a given case demands some peculiar use of the appliances.

None of that system can be explained to persons who are not acquainted with it, by the mere description of a single case, any more than an artist could show you first a photograph and then the finished canvas and explain how he mixed all those pigments to produce the results (applause).

I say that in defense of Dr. Flint and all the other men who have been doing the same sort of work (applause).

**Dr. Walker.**

I won't take up any more time, but I could just answer that (laughter).

**Dr. Flint.**

Dr. Walker has asked how to do it.

**Dr. Ottolengui.**

Throw a picture on the screen and show him.

**Dr. Flint.**

Very well. Do you remember the case where the four incisors were lost?

**Dr. Walker.**

Yes, I do.

**Dr. Flint.**

Did I not tell you to put bands on the lower cuspids with a jack-screw between them and explain how that was done? You can use that in all such cases.

## ITEMS OF INTEREST

The a, b, c of this whole thing is you want to get results, but you do not want to begin at the bottom. The first thing a man must know is how to diagnose a case, and you can not do that unless you know what normal occlusion is; when you know that you are entitled to study something about abnormal occlusion. Then we come down to the classification of cases.

But it is like the man with the paints. It does not make any difference what appliances you use if you know how to use them. It is no more a question of appliances to us than it is of brushes with the painter. You know what you want as a final result and you know what you find in the first instance. So it resolves itself to the first question, do you know occlusion and do you know how to diagnose? If you do, the appliances are a secondary consideration; you can use any system provided you get the same result.

In our corrective work we are trying to interpret nature's wishes and to put every tooth into its proper place, and if we can we know we have the proper face for that particular individual.

(A slide was thrown upon the screen. Dr. Flint here described his method of doing the work shown by this slide; and also work shown by other slides.)

**Dr. Root.**

The essayist has said that the orthodontists must know how to diagnose and must know malocclusion. The orthodontist probably does and we do not, and we have no means of illustrating to our patients what we want done when we send them to you. All we get out of it is the advice, and you get the money and we are glad to give it to you. Now, why do not you, as an individual, or why does not the society of orthodontists, get up a book taking each class of cases and illustrating it so that I can show my patient? Something like their cases in that book? That would be an easy thing to do and you could supply us at so much apiece and we could use your book and show our patients what would be the result if we sent them to you.

**Dr. Flint.**

That is an interesting question. I had a man in my town come and ask me that, but the minute you do it, a howl would go up, for some fellow would think you were trying to advertise yourself.

While you were speaking, the thought came to me that we are criminally negligent if we do not impart knowledge. A dentist in our town told the parent of one of his patients that the child had adenoids and the parent was very angry, and the dentist said that he would never tell the patients such things again. I told him he did wrong, that it was his duty, knowing the evil results, to see that such things were cured.



## SOCIETY DISCUSSIONS

I would like to say just one word to the dentists who are here. Do you not understand the last two cases that were put on the screen much better than you did when they were mentioned in the paper?

**Several Members.** Yes!

Now, in regard to Dr. Ottolengui and the painting with pigments and all that sort of thing, we all do not expect to be Raphaels, Michael Angelos and all that sort of thing, but they were not the only painters in the world; there were a great many others and it is the "others" that are going to take up the study of this thing in our society. If they do not know the difference between occlusion and malocclusion we are going to show them. We are not catering to a lot of boys that are just out of school, but to experienced men and practicing dentists and we want to help make these people happy. That's what we are trying to do in our society, we can not accomplish it in a year, but we can in four or five years.

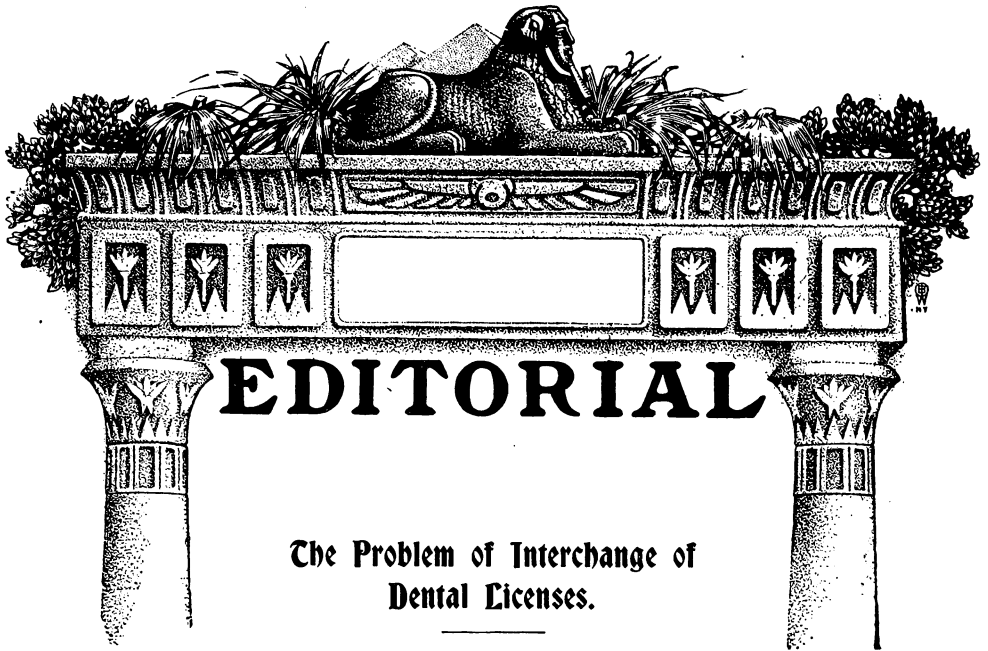
Eight years ago in the First District Dental Society I started a class in dental pathology and histology; I got twenty-two hundred dollars together for that purpose, but could not find any one man who would give his whole time to the work, and it went by default, but if I had been able to get that work going we would have had a half dozen men who would have kept that work up where Dr. Abbett and the others left off.

That's what we are trying to do and we want you dentists to help us, that's all.

On motion a vote of thanks was extended to Dr. Flint for his very able paper.

Adjourned until eight o'clock P. M.





Numerous letters have reached the Editor's desk during the summer inquiring about, advocating, condemning, and generally discussing the vexed question of interchange of dental licenses. These letters come from two classes of writers; first, those engaged in re-formulating dental statutes; and second, those who broadly claim that a legal practitioner of one State should be entitled to practice in any State. The entire subject has been discussed pretty thoroughly in our pages in years past, but so many seem to be studying it at present, that it appears to be a timely topic.

**The Critics of  
Present  
Conditions.**

The majority of letters are from those who think that the entire system of dental licenses is wrong, and it is quite interesting to observe that the arguments used are quite similar in all the letters and that the writers advance them quite as though they were both new and original, whereas they are exactly what we have been hearing for the past fifteen years. For example, we are told that "After a man has spent his time and money to get a diploma it should entitle him to practice anywhere;" that, "if a man pass an examining board in one State his license should be good in any State;" that "If we must have licenses, then





why not have a National examining board, empowered to grant licenses good throughout the Union?" There are many other arguments, but let us consider these three, because they are used so repeatedly.

"A diploma should entitle a man to practice anywhere." If all the colleges furnished exactly the same grade of teaching, and if the graduates from all dental schools were on an equality, and if the standards were the same in all States, undoubtedly, the college diploma might be the measure of a man's fitness. But, the teaching is not at all the same in all of the schools, the qualifications of the graduates are not all on a level plane, and the various States have quite different notions as to the education which a man should possess to be entrusted with the care of patients. Consequently, the diploma can not be the unit of measurement, because diplomas are so variable.

"The license of one examining board should be recognized by all boards." This can not be, because examining boards and State licenses differ quite as much as do colleges and college diplomas.

"If we must have licenses, they should be granted by a National board, and be good throughout the Union." Those who argue for this overlook entirely the Constitution of the United States, which grants absolute sovereignty, within its borders, to each State, and there is no right more jealously guarded by the State. National examining boards might grant licenses till doomsday, but there is no power which would compel any State to honor such licenses.

<b>Interchange of Licenses.</b>	The above facts being true, can there be any practical system of interchange between the States? The so-called "Asheville Resolution" is the best solution yet offered. It reads as follows:
-------------------------------------	--

"Any dentist who has been in legal practice for five years or more, and is a reputable dentist of good moral character, and who is desirous of making a change of residence into another State, may apply to the examining board of the State in which he resides for a new certificate, which shall attest his moral character and professional attainments, and said certificate, if granted, shall be deposited with the examining board of the State in which he proposes to reside, and the said board, in exchange therefor, may grant him a license to practice dentistry."

There are several features of the above which render it eminently

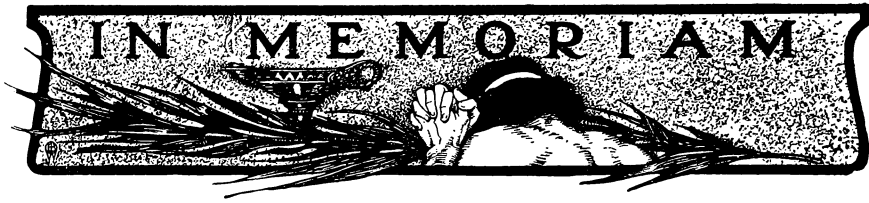


## ITEMS OF INTEREST

practical and just. It is just to the individual, to the State and to the college. It is just to the individual, because at any time within five years of graduation it should be no great hardship to regularly pass an examination before a State board. Indeed, with the advantage of some practical experience the passing should be easier. It is just to the State because, if a man first passes an examining board, then engages in practice for five years, and at that time can satisfy the State board of his respectability and of his ability, there can be little risk for any community to grant him a license. Lastly, it is just to the colleges, if rightly interpreted and administered. In all schemes of interchange, the college interest must be considered, because no State, having chartered a college, and having erected certain standards to which its own college must conform, will license graduates in colleges in States where standards are less. To do so would be to invite its own citizens to seek education in colleges in adjacent States, and pass examinations both for diploma and for license where standards are lower, trusting to interchange to re-enter their own State. Under the five year clause this is frustrated. No man, for example, desiring to practice in his own State would be apt to actually practice for five years in some other State merely to avoid passing his own State board.

There is one other point worthy of comment. A number of States having agreed to interchange under the Asheville plan, a few men have thought to enter one State through another; for example by exchanging from Michigan into New Jersey, with no other purpose than to exchange again from New Jersey to some other State. But, if the Asheville plan be carefully studied it will be seen that this can not be done. The Michigan man having exchanged into New Jersey, must practice there for five years before he may ask the New Jersey board for the necessary certificate recommending him for interchange.

Several years have now passed, and no better method of interchange has been formulated, and until colleges are equal, and educational standards are the same in all States, it is hopeless to look for any universal interchange, or any National license voluntarily recognized in all States. The Asheville plan affords a practical basis of interchange. Why have so few States adopted it? Why does not the National Association of Dental Examiners urge the measure upon all its members?



### **Aaron Lockwood Northrop, D.D.S.**

---

The dentists of the Metropolis, returning home from their summer vacations, were shocked to find on their desks the ominous black bordered envelope which enclosed notices of the sudden death of their most honored colleague Dr. Aaron Lockwood Northrop, and it was sad, after the joyous summer days on hillside, lake and sea, to meet their confreres for the first time around the bier of one who, though perhaps not young, had seemed younger and more virile than many twenty years his junior.

Dr. Northrop died, at the Hotel Balzac, in Paris, France, of heart failure, on Monday, August 31. He had suffered no previous illness. With his wife he was out walking when he complained of feeling badly, and they returned at once to the hotel. Dr. Northrop lay on the lounge, and his wife sat beside him for only a minute, when he looked up into her face, bade her "Good-by," and expired.

Dr. Northrop was born in North Salem, New York, but while yet a boy his parents moved to Ridgefield, Conn. His father and mother died and were buried from the Ridgefield home, which has belonged to the family for over seventy years. When a young man it was thought that Dr. Northrop had contracted tuberculosis, and his parents sent him to a cold, dry climate, where he occupied himself with outdoor employment, and in a couple of years he returned in rugged health which he enjoyed until his death. He had constantly expressed the hope that he might die suddenly, thus sparing distress and trouble to others, and this lifelong prayer was granted at the end.

Dr. Northrop studied dentistry and was graduated in Philadelphia. He was the first president of the Odontological Society of New York, and also the first president of the First District Dental Society, of the same city. In both he retained membership until his retirement from active practice two years ago, at which time his name was promptly moved to the honorary list. He was a member of the New York State Dental Society and of the National Dental Association, but had never sought nor held office in either. He was honorary member of the New Jersey

## ITEMS OF INTEREST

Societies, and non-resident member of the Odontological Society of England.

He stood very high in Masonic circles; was a member of the Masonic organization of the State of New York, a thirty-third degree member of the Scottish Rite, and a member of the Mystic Shrine.

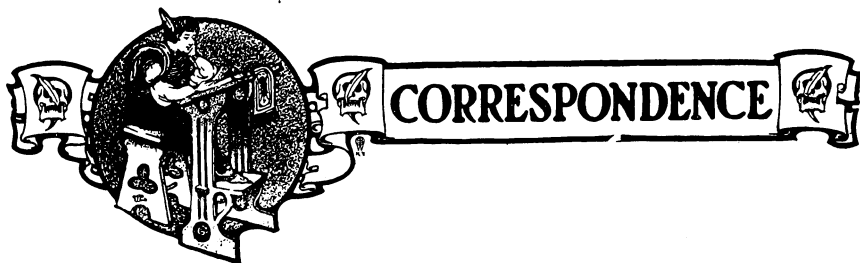
He was likewise a member of the Lotos Club, and of the Union League Club, of New York; also of the Ridgefield Club and Golf Club. He was a charter member of the American Institute (of Science and Art), in which he was long an officer and took a profound interest.

Dr. Northrop was held in the highest esteem in the community and his clients were of the most aristocratic, as well as among the richest people. He retired, however, from active practice two years ago, about which time his associates, in respect to his long, useful and honorable career, tendered him a banquet, on which occasion his lifelong friend, Dr. Safford G. Perry, read a "Sonnet" to Dr. Northrop, than which no fitter eulogy can now be found.

One day in grateful reminiscent mood  
My soul took inventory of the past,  
And summed the total of a winsome brood  
Of joys that bless, of memories that last.  
Upon my balance sheet of life I found,  
In figures large, a sheltered home of rest,  
And in its sacred precincts, hearts that bound  
With love profound—that ever welcome guest!  
But with these blessings still another lends  
A final charm, that ever warms and cheers;  
A rare dear friend among my many friends.  
As true as steel, as faithful as the years.  
And this rare friend—God gives no gift more bright—  
Sits smiling here, our honored guest to-night.

Dr. Northrop is survived by his wife, who was Miss Carrie N. Hanford of New Caanan, Conn.





## Information Wanted in regard to Treatment of Erosion.

Editor ITEMS OF INTEREST.

Dear Sir—I would like to hear the methods used in various offices in the treatment of erosion and the success attendant thereon. And that I may not be asking something for nothing, I give here my own practice for your consideration.

For the past nine years I have used the following method and have found it good, though painful.

I have treated a rather large number of cases and in all have seemed to arrest the progress of the disease, though in one or two I have had to repeat the treatment in the course of time, because of returning sensitiveness. The treatment is as follows:

**Treatment for  
Erosion.**

The teeth are carefully polished and cleaned and the gums and mucous membranes cleaned and massaged and the mouth made as nearly sterile as possible.

The dam is then placed and crowded as far up as possible to expose the entire eroded surface. The affected teeth are then freely bathed in hydrogen dioxid and the chemical dried into the tooth with a warm instrument. This is done to make use of both the cleansing and mechanical emptying properties of dioxogen, thus opening up and disinfecting the enlarged orifices of the tubuli.

After the dioxogen is thoroughly dried away, chloroform is freely used to wash away any fats that may be present and the tooth is wiped dry.

Then a stream of warm air is turned on till the tooth is dry.

The tubuli now being as free from foreign substance as I can get them, forty per cent. formalin is then applied plentifully and dried into the tooth as thoroughly as can be done with hot instruments and hot air, a bit of parafin placed on the affected spot and melted there with the hot instrument and the heat carried as high as the patient can stand, the object being to get the parafin as deeply into the tubuli as possible. Treatment repeated six or eight times, two or three days apart and the case dismissed with instructions to return at once should sensitiveness again develop.

I know of nothing better. Do you? Kindly write me your methods and successes or failure.

3154 Indiana Avenue, Chicago.

LUCIEN H. ARNOLD, D.D.S.



# SOCIETY ANNOUNCEMENTS

## National Society Meetings.

---

American Society of Orthodontists, Washington, D. C., November 5, 6, 7, 1908.

---

## State Society Meetings.

---

Northern Illinois Dental Society, Freeport, Ill., October 21, 22, 1908.

Ohio State Dental Society, December, 1908.

Southern Illinois Dental Society, Greenville, Ill., October 27, 1908.

---

## National Dental Association.

---

An adjourned meeting of the Executive Council of this Association will be held at the Hotel Schenley, Pittsburg, Saturday, October 10, at 4 o'clock in the afternoon. Members having any business to present to the council will be on hand promptly at that hour. By order of,

H. J. BURKHART, Chairman.

CHARLES S. BUTLER, Secretary.

Buffalo, N. Y.

---

At the twelfth annual meeting of the National Dental Association, held in Boston, Mass., July 28 to 31, 1908, the following officers were elected for the ensuing year: V. E. Turner, Raleigh, N. C., president; Wm. Crenshaw, Atlanta, Ga., vice-president for the South; Eugene H. Smith, Boston, Mass., vice-president for the East; W. T. Chambers,



Denver, Col., vice-president for the West; H. C. Brown, Columbus, Ohio, corresponding secretary; Charles S. Butler, Buffalo, N. Y., recording secretary; A. R. Melendy, Knoxville, Tenn., treasurer. Executive Committee: New members, J. D. Patterson, Kansas City, Mo.; C. J. Grieves, Baltimore, Md.; H. B. McFadden, Philadelphia, Pa. Executive Council: H. J. Burkhart, chairman, Batavia, N. Y.; B. Holly Smith, Baltimore, Md.; F. O. Hetrick, Ottawa, Kan.; A. H. Peck, Chicago, Ill.; W. E. Boardman, Boston, Mass.

Birmingham, Ala., was selected as place for 1909 meeting.

H. C. BROWN, Cor. Secretary.

185 East State Street, Columbus, Ohio.

---

### **American Society of Orthodontists.**

---

In view of the fact that the Presidential election occurs on one of the dates originally set for the meeting of the American Society of Orthodontists, the board of officers has decided to change the dates, and the meeting will occur at Washington, D. C., Thursday, Friday and Saturday, November 5, 6 and 7. The meeting will occur at the Burlington, and hotel accommodations may be engaged at the Dewey Hotel, Fourteenth and L Streets, N. W.

F. C. KEMPLE, Secretary.

---

### **New Jersey State Board of Registration and Examination in Dentistry.**

---

The New Jersey State Board of Registration and Examination in Dentistry will hold their semi-annual meeting to examine candidates for license in the Assembly Chamber of the State House at Trenton, N. J., beginning Monday, December 7, and continue through the 8th and 9th. Candidates must furnish professional and preliminary credentials and a photograph, or the application will not be accepted. Applications must be filed before December 3. Practical operative and practical prosthetic work completed on the 7th. Applicants requested to furnish their patients for the practical operative work.

CHARLES A. MEEKER, D.D.S., Secretary.

29 Fulton Street, Newark, N. J.



## **Northeastern Dental Association.**

---

The fourteenth annual meeting of the Northeastern Dental Association will be held in Hartford, Conn., Foot Guard Hall, 159 High Street, October 21, 22, 23, 1908.

A good and profitable meeting is expected. Ethical members of the profession, especially in New England, are invited to attend and members of their respective State societies are asked to join the association.

EDGAR O. KINSMAN, Secretary.

Cambridge, Mass.

---

## **Illinois State Board of Dental Examiners.**

---

The annual meeting of the Illinois State Board of Dental Examiners for the examination of applicants for a license to practice dentistry in the State of Illinois will be held in Chicago at the Dental Department, University of Illinois, corner Honore and Harrison Streets, beginning Monday, November 9, 1908, at 9 A. M.

Applicants must be in possession of the following requirements in order to be eligible to take the examination: (1) Any person who has been engaged in the actual, legal and lawful practice of dentistry or dental surgery in some other State or country for five consecutive years just prior to application; or (2) is a graduate of and has a diploma from the faculty of a reputable dental college, school, or dental department of a reputable university, or (3) is a graduate of and has a diploma from the faculty of a reputable medical college or medical department of a reputable university, and possesses the necessary qualifications prescribed by the board.

Candidates will be furnished with proper blanks and such other information as is necessary on application to the secretary. All applications must be filed with the secretary five days prior to the date of examination. The examination fee is twenty (\$20) dollars, with the additional fee of five (\$5) dollars for a license.

Address all communications to

J. D. REID, Secretary.

1204 Trude Building, Chicago, Ill.





## **Oklahoma Board of Dental Examiners.**

---

There will be a meeting of the Oklahoma Board of Dental Examiners held at Oklahoma City on November 10, 11, 12, 1908, for the purpose of examining candidates for license, as well as finishing up the registrations of the dentists of the Indian Territory side of the State that are eligible under the provisions of the Constitution. All such dentists that do not appear before the board personally, at that time, or have presented their affidavits of residence, and be deemed eligible to registration, will be liable to prosecution for practicing illegally thereafter. For further information address the secretary.

I. C. HIXON, Secretary.

Guthrie, Okla.

---

## **Ohio State Dental Board.**

---

The State Dental Board of Ohio will meet in regular session in Columbus on October 20-23, 1908, for the examination of applicants for license to practice dentistry in this State. Only graduates of reputable dental colleges are eligible to appear for examination. All applications must be in the hand of the secretary at least ten days before the date of the examination, together with the fee of \$25. For further information and blank application address the secretary.

F. R. CHAPMAN.

305 Schultz Building, Columbus, Ohio.

---

## **[Texas State Board of Dental Examiners.**

---

The regular semi-annual meeting of the Texas State Board of Dental Examiners will be held in Houston, Texas, beginning 9 A. M., Monday, December 14, 1908. Diplomas not recognized or registered; examination required of all.

No interchange of license with any other State.

No special examination to practitioners already in practice.

Applications accompanied by fee of \$25 should be in secretary's hands December 10.

For further information address

BUSH JONES, Secretary.

Dallas, Texas.



## **Northern Illinois Dental Society.**

---

The twenty-first annual meeting of the Northern Illinois Dental Society will be held at Freeport, October 21 and 22, 1908.

Mark the date in your appointment book and be sure and come for both days. The supervisor of clinics and programme committee promise one of the best meetings of the society.

C. L. SMITH, Secretary.

St. Charles, Ill.

---

## **Minnesota State Board of Dental Examiners.**

---

The next regular meeting of the Minnesota State Board of Dental Examiners will be held at the Dental Department of the State University in Minneapolis, Minn., on November 10, 11 and 12, 1908. All applications must be in the hands of the secretary by November 1. For further information address

DR. GEO. S. TODD, Secretary.

Lake City, Minn.

---

## **Maryland Board of Dental Examiners.**

---

The Maryland Board of Dental Examiners will meet for examination of candidates for certificates November 5, 6, 1908, at the Baltimore College of Dental Surgery, Baltimore, at 9 A. M.

Written examinations will consist of the following subjects: Anatomy and physiology, oral surgery, chemistry and bacteriology, operative and prosthetic dentistry, pathology, therapeutics and materia medica. The practical requirements are the insertion of a gold filling in the mouth and the submission of a metal plate or bridge of not less than four crowns—the parts being assembled and invested in advance and soldered in the presence of the board.

Application blanks properly filled out under oath, accompanied by the fee of ten (\$10) dollars, must be filed with the secretary prior to day of examination.

F. F. DREW, Secretary.

701 N. Howard Street.



## **American Dental Society of Europe.**

---

At the thirty-fifth annual meeting of the American Dental Society of Europe, held in London, July 31 to August 4, the following officers were elected for the ensuing year: President, Dr. John W. Gale, Cologne, Germany; vice-president, Dr. William S. Davenport, Paris, France; honorary treasurer, Dr. William M. Cooper, Frankfurt a/M., Germany; honorary secretary, Dr. T. G. Paterson, Geneva, Switzerland.

The next meeting of this society will be held at Wiesbaden, Germany, during Easter week, 1909, the exact dates of which will be decided by the Executive Committee.

T. G. PATTERSON, Honorary Secretary.

2 Quai des Eaux-Vives, Geneva, Switzerland.

---

## **Third and Fourth District Dental Societies of the State of New York.**

---

A joint meeting of the Third and Fourth District Dental Societies of the State of New York will be held at Troy, October 20, at the Rensselaer Inn.

All practitioners in good standing are cordially invited to attend.

MORTON VAN LOAN, Editor.

---

## **New Jersey State Dental Society.**

---

The following is a list of the new officers of the New Jersey State Dental Association elected at their annual meeting, July 15: Frank G. Gregory, D.D.S., president, Newark, N. J.; Charles H. Dilts, D.D.S., vice-president, Trenton, N. J.; Charles A. Meeker, D.D.S., secretary, 29 Fulton Street, Newark, N. J.; Herbert S. Sutphen, D.D.S., assistant secretary, 17 Walnut Street, Newark, N. J.; Dr. Henry A. Hull, treasurer, New Brunswick, N. J. Executive Committee: Charles H. Dilts, D.D.S., chairman, Trenton, N. J.; Harvey Iredell, D.D.S., New Brunswick, N. J.; Wallace F. Naylor, D.D.S., Somerville, N. J.; Henry Fowler, D.D.S.,



Harrison, N. J.; W. W. Hawke, Flemington, N. J. Membership Committee: Wm. T. Thompson, D.D.S., Asbury Park, N. J.; Dr. Oscar Adelberg, Elizabeth, N. J.; Thomas F. Martin, D.D.S., Rahway, N. J.; Wm. P. Richards, Orange, N. J.; G. M. Holden, Hackettstown, N. J.

---

### **New Hampshire Board of Registration in Dentistry.**

---

The next meeting of the New Hampshire Board of Registration in Dentistry, for the examination of candidates, will be held at Masonic Banquet Hall, Manchester, N. H., December 1-3, 1908. No special examinations. All are required to secure license before commencing practice.

A. J. SAWYER, Secretary.

Manchester, N. H.

---

### **Southern Illinois Dental Society.**

---

The twenty-third annual meeting of Southern Illinois Dental Society will be held in Greenville on Tuesday and Wednesday, October 27 and 28. We hope that all interested in the welfare of this society may unite with us in our efforts to make this a banner meeting.

HARRY K. BARNETT, Secretary.

